FINANCIAL TIMES

PUBLISHED IN LONDON AND FRANKFURT

No. 28,311 Monday November 3 1980 ***25p

CONTINENTAL SELLING PRICES: AUSTRIA Sch 15; BELGIUM Fr 28; DENMARK Kr 5.00; FRANCE Fr 4; GERMANY DM 2.0; ITALY L 800; NETHERLANDS Fl 2.0; NORWAY Kr 5.00; PORTUGAL Esc 45; SPAIN Pta 75; SWEDEN Kr 5.00; SWITZERLAND Fr 2.0; EIRE 30p; MALTA 25c

GENERAL

Call for Ulster firemen to quit

Part-time firemen who man all of Northern Ireland's stations outside Belfast and Londonderry are being recommended to resign en masse.

Delegates representing the 768 men made the call after an unsuccessful 2½-year campaign to have the Retained Fire-fighters' Union recognised by the employers.

A ballot will take about two weeks to complete, but the recommendation is expected to win overwhelming backing.

If the firemen do quit, the Army will probably take over Ulster's fire cover, using elderly Green Goddesses that were brought out of storage during the national firemen's strike three years ago.

Minister held

Iraqi forces have captured Mohammad Javad Tondguyan, the Iranian Oil Minister, the official news agency in Baghdad said.

'Mole' accuses

Dougal Mackenzie, the British Steel Corporation "mole" who leaked documents to Granada Television, accused BSC of provoking the national steel strike in order to speed up plant closures.

Fianna Fail split

Splits within the Irish Government party, Fianna Fail, became evident when Premier Charles Haughey denounced an attack on Mrs. Margaret Thatcher by Miss Sile De Valera, one of the party's MPs and a grand-daughter of its founder.

Heathrow mystery

Airport security chiefs were trying to discover how a light aircraft stolen in Buckinghamshire managed to land unobserved at Heathrow during darkness.

Seaman can stay

Soviet seaman Boris Gavrilov, who jumped ship at Leith, has been granted temporary political asylum and can stay in Britain for a year.

Polish deadlock

Polish authorities refused to sign a communique after talks with the country's largest independent trade union, although the Premier repeated his verbal assurance that all pledges would be honoured. Page 3

Cheap sport call

Local authorities are being asked by the Central Council for Physical Recreation to offer the unemployed, particularly youngsters, off-peak cheap rates at publicly-owned sports facilities.

'Goodwill' move

Kurt Waldheim, the UN Secretary-General, has invited Greek and Turkish leaders to a meeting in New York this month to discuss "goodwill measures."

'Free prisoners'

Amnesty International, the human rights pressure group, called on Pakistan's President Zia to release all prisoners of conscience of the country and to halt torture, floggings and executions.

Still going strong

An 1898 Rochet Tricicle was first to cross the finishing line in the annual London to Brighton veteran car rally. It took 2 hours 5 minutes.

Briefly . . .

Fire at a Polish mental hospital killed 49 patients.

Princess Michael of Kent, 34, is expecting her second baby in April.

East Germany and Zimbabwe established diplomatic relations.

BUSINESS

Big drop in Iran's UK bank deposits

● IRANIAN deposits with London's big clearing banks have been cut by about two-thirds in the last year to £300-£400m. Bankers say many loans are being serviced in arrears, and fear £200m in loans to Iran may be irrecoverable. Back Page

● ECONOMIC growth should recover strongly in 1982 — after another 12 months of falling output, the London Business School Economic Outlook says. Page 6

● NORTH SEA gas gathering pipeline costing £1.1bn could be started by a group of banks, ensuring production from British steel. Back Page; ethane route dispute, Page 4

● ICI is expected to sign a multi-million pound deal allowing it to sell a wide range of chemicals to the Soviet Union. Back Page

● BUILDING and civil engineering companies' overseas earnings fell 20 per cent to £1.29bn in the year to April Page 4

Seamen claim strong support for stoppage

● SEAMEN'S union claimed overwhelming support for today's 24-hour strike over Cunard's plans to sail some ships under flags of convenience. Page 8

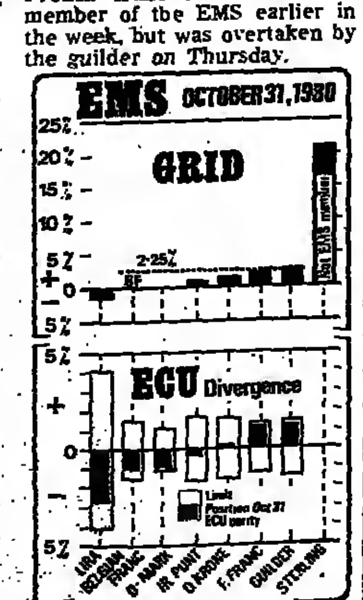
● BL CARS' shop stewards decide today whether to recommend a strike in pursuit of a 20 per cent pay claim. The company has offered 6.8 per cent. Back and Page 7

● POWER WORKERS' shop stewards decided on a 20 per cent pay claim. Back Page

● CIVIL SERVICE unions are likely to seek a court ruling to secure Pay Research Unit comparability reports used to determine pay increases for 550,000 white-collar staff. Page 8; pay-roll cuts, Page 7

● CENTRAL BANKS in Germany, France and the Netherlands gave support to the D-mark last week to prevent it falling outside the agreed limits of the European Monetary System. The German currency was at its lower intervention point against the French franc and Dutch guilder. Switching into dollars and sterling, attracted by high interest rates in New York and London, was behind the D-mark's weakness, coupled with Germany's large balance of payments deficit.

The Belgian franc also touched its floor against the guilder and French franc on Friday, but was not under heavy pressure despite some intervention by the Belgian National Bank. The Italian lira remained the weakest member of the system, although well within its extended divergence limit. The French franc was the firmest member of the EMS earlier in the week, but was overtaken by the guilder on Thursday.



The charts show the two constraints on European Monetary System exchange rates. The upper grid, based on the weakest currency in the system, defines the cross rates from which no currency (except the lira) may move more than 2¼ per cent. The lower chart gives each currency's divergence from its "central rate" against the European Currency Unit (ECU), itself a basket of European currencies.

President considers Tehran's conditions for freeing hostages

BY JUREK MARTIN IN WASHINGTON AND PATRICK COCKBURN LONDON

PRESIDENT Jimmy Carter broke off campaigning for tomorrow's election and returned to the White House yesterday to consider the terms agreed by the Iranian Parliament for the release of 52 U.S. diplomats held hostage in Iran for the last year.

The Majlis, Iran's parliament, finally decided to reaffirm officially an expanded version of the four conditions originally mentioned by the Ayatollah Khomeini, the country's revolutionary leader, at the beginning of September.

These are that the U.S. Government should promise not to intervene in any way in Iranian affairs, to unlock frozen Iranian assets, drop other forms of economic action and legal claims and return the assets of the Shah and his family.

It appears that the release of the hostages may be closely tied to the pace at which the U.S. Government fulfils the Iranian demands.

Mr. Carter convened a morning session with Mr. Walter Mondale, the vice-president, Dr. Zbigniew Brzezinski, the national security adviser, and Mr. Edmund Muskie, the secretary of state.

After the morning meeting Mr. Jody Powell, the Press Secretary, said the President needed more "information" before making a decision on the Iranian conditions. "The obvious gravity of the situation requires deliberate and careful consideration by the President," Mr. Powell said.

Later, in a television interview, Mr. Muskie reiterated U.S. willingness to end the year-long impasse with Iran. But he noted that the official Iranian position apparently due to be clarified in a Government statement today could vary from what was passed by the Majlis yesterday. "All we've got are unofficial reports," he said.

An official version of the Iranian demands in Farsi (Persian) and English is being drawn up in Tehran. Some aspects of the terms as released by the official Iranian news agency are still unclear.

The fact that the deputies did not in the event add anything to the conditions for release which the Ayatollah Khomeini had announced was taken in Tehran as an indication that the Government of Prime Minister Mohammed Ali Rajai wants the issue settled.

Nevertheless, the parliamentary commission which has drawn up the terms under which the hostages will be released said the U.S. must not only accept but must act to carry out the conditions before the hostages are released. This could lead to a phased release.

"In case the fulfilment of some of the conditions needs more time," the commission said, "given the acceptance of all the conditions by the American Government, in exchange for the fulfilment of each condition some of these offenders (hostages) will be released as decided by the (Iranian) Government."

Mr. Muskie emphasised his

Continued on Back Page

Carter may find demands hard to meet. Page 2

IRAN'S TERMS FOR RELEASE

1.—A promise by the U.S. Government not to intervene politically or militarily in Iran.

2.—Unfreezing of all Iranian assets inside and outside the U.S. and their return to Iranian control.

3.—An end to all "economic and financial" actions against Iran and the cancellation of all legal claims against Iran.

4.—The return of the Shah's fortune to Iran.

Polls give narrow lead to Carter

By Jurek Martin, U.S. Editor, in Washington

THE FINAL round of public opinion polls before tomorrow's Presidential election suggest that President Jimmy Carter can afford to lose hardly any of the big marginal states if he is to stay in the White House for another four years.

The surveys do not, and cannot, take account of what public reaction will be to the possible release of the U.S. diplomatic hostages from Iran.

This new and real factor in tomorrow's voting, could benefit Mr. Carter. But it could also help Mr. Ronald Reagan if people believe that the President has manipulated the plight of the hostages to his own political end.

Two of this weekend's polls show Mr. Carter retaining the narrowest of leads in broad popular sentiment.

A Gallup poll for Newsweek magazine puts him ahead by 41 to 44 per cent but qualifies this finding with the stipulation that if the poll is limited to those most likely to vote, Mr. Reagan holds a one-point edge, 44 to 43 per cent.

The Sindlinger poll gives Mr. Carter the edge by less than one half of one per cent.

The election, however, is determined not by the national vote but by the mathematics of the Electoral College: Whoever wins a given State gets all that State's votes in the college, ranging from the 45 for California down to three for the five smallest states. There are a total of 538 electoral college votes, meaning that 270 are needed to become the next President.

In this context, the New York Times survey gives Mr. Reagan 98 solid votes, with another 137 leaning in his direction. Mr. Carter is given 89 certains and 56 probable States with a total of 158 votes.

The Washington Post state-by-state poll gives Mr. Reagan 22 states and 207 electoral votes, and Mr. Carter 15 states plus the District of Columbia, worth 163 votes. The remaining 168 are said to be too close to predict.

Of particular concern to Mr. Carter is the fact that his Southern base no longer seems secure. Surveys find him in danger of losing Virginia, South Carolina, Alabama, Florida, Mississippi, Louisiana, and, most important, in Texas.

Mr. Reagan, however seems likely to capture most states in the Western half of the country. The one niggling doubt concerns his home state of California.

Forecasters take gloomy view of next 12 months

BY PETER RIDDELL, ECONOMICS CORRESPONDENT

BRITAIN faces another bleak 12 months of falling output and profits and sharply rising unemployment, but from 1982 onwards the economic outlook should be significantly better, the London Business School predicts this morning.

The Business School believes that, provided the monetary and public spending targets are met, the annual rate of consumer price inflation should decline to single figures by the end of next year and remain there, while from 1982-83 on there should be scope for income tax cuts.

Unemployment is, however, likely to continue to rise, though at a much slower rate than at present.

This gloomy view of the immediate outlook is shared by most other forecasters and is supported by the latest Financial Times business opinion survey, also published this morning.

The opinion survey — this month covering the non-electrical engineering, chemical and oil, and transport sectors —reports a sharp drop in new orders and recent deliveries. But industry appears to be having some success in reducing levels of stocks and a few of the individual comments reveal a feeling that the recession may soon reach bottom.

The one clear positive point is the further revision downwards by companies of expectations about cost and price increases over the next 12 months.

Greater optimism about inflation in business opinion surveys and economic forecasts is probably the only comforting short-term factor for the Government.

There is, for example, agreement about the worsening prospects for public sector borrowing. But there is considerable dispute among the pundits about the extent of the problem, and hence about the size of any offsetting public spending changes and tax increases.

The Business School estimates that, on the basis of unchanged policies, public sector borrowing will be about £9½bn in 1981-82, which will make achievement of the monetary target extremely difficult. In contrast, stockbrokers Phillips and Drew believe that borrowing could reach £12bn in 1981-82 even with £2bn of public spending cuts and a mildly deflationary Budget next spring.

Continued on Back Page

FT Business Opinion Survey. Page 12

Healey and Foot prepare for close second ballot

BY ELINOR GOODMAN, LOBBY CORRESPONDENT

THE LABOUR leadership contest may well develop by the end of the week into a fight for the support of about 15 MPs in the Centre of the party.

Yesterday the campaign managers for the two leading contenders, Mr. Denis Healey and Mr. Michael Foot, were already preparing their tactics for the second ballot on the assumption that the result of the first ballot, to be announced tomorrow, will be inconclusive.

Both sides agreed that the final ballot could be decided by only a handful of votes. Mr. Healey was still just hanging on to his position as favourite but, as the count for second-choice votes began, supporters of Mr. Foot claimed to be making ground.

Mr. Foot's campaign will almost certainly get a boost tomorrow night as soon as the results are announced when Mr. Peter Shore, together probably with the other runner-up Mr. John Silkin, declare their personal support for him.

Neither Mr Silkin nor Mr. Shore—whose supporters could ultimately decide the result—can guarantee that all their followers will heed their advice but their declarations of support for Mr. Foot will emphasise the task facing Mr. Healey in the second round.

Both Mr. Healey and Mr. Foot, along with their respective campaign managers, were still said to favour a clean fight. But with both camps predicting a very close final ballot, there were signs yesterday that some of the most committed supporters might spend as much time this week stressing the negative side of their opponents as pointing to the positive attractions of their own candidate.

In the background of this will be discussions about how best to implement the decision of the party conference to change the system of electing the party leader. At tonight's meeting of the Shadow Cabinet, some members may take the opportunity to raise the question of whether the existing voting strengths at the conference reflect the structure of the party, and whether it is right to build on these proportions when constructing a new system of electing the leader.

The view in both leading camps yesterday was that Mr. Healey will have a clear lead in the first round over Mr. Foot but that he will almost certainly not get an overall majority. With well over half the votes already cast, the most commonly accepted prediction yesterday was that Mr. Healey would get between 110 and 120 and Mr. Foot 80 to 90.

For the second ballot, the general view is that Mr. Healey should pick up more of Mr. Shore's votes than will Mr. Foot.

Government accepts need for a higher deficit

BY SAMUEL BRITTAN

THE GOVERNMENT accepts that public-sector borrowing will be higher in the next fiscal year than originally intended because the recession is proving severer than expected.

The Medium-Term Financial Strategy published at the time of the March Budget gave a PSBR target for next year of 3¾ per cent of the Gross Domestic Product. This would mean about £7½bn compared with a target of £8½bn for 1980-81, itself almost certain to be exceeded.

The exact size of next year's PSBR compatible with the financial strategy is still under debate. Independent economic forecasters give a range of £9bn to £12bn.

The intention is to allow tax revenue to fall short of the target while maintaining the public expenditure objectives set out in the last White Paper.

The purpose of the spending cuts which the Treasury is asking departments to make is simply to bring total public spending back on the course set in the March White Paper.

Some industrial programmes, including nationalised industry deficits, have overrun because of the recession. There is also need to make room for an employment package. Other threatened spending increases, as in defence, are self-propelling.

A further squeeze on public spending via cash limits is also likely to be required if the Government is to meet even its enlarged PSBR targets without increasing the burden of tax.

Sir Geoffrey Howe suggested that public-sector wage payments should not rise by more than the 6 to 10 per cent of the monetary target for next year, and he is likely to be advised to aim for the lower end of this range.

Lombard: Geoffrey's need to make haste, Page 14

Energy pricing changes planned

BY SUE CAMERON AND JOHN ELLIOTT

CHANGES IN its energy-pricing policy are being prepared by the Government to placate manufacturers who say they are forced to pay more than foreign competitors for oil, gas and electricity.

The Government is thought to be considering three measures:

● Easing cash limits set for nationalised coal, gas and electricity industries for the next financial year to prevent energy prices rising even faster than expected—costs of gas, coal and electricity would not decrease;

● asking oil companies to explain why heavy fuel-oil is more expensive in the UK than in other European countries; and,

● encouraging electricity boards to give their industrial customers more help in deciding the best load factors and cheapest tariffs.

Electricity boards are already expected to advise manufacturers on pricing but the law dictates that they must not give "undue preference" to any one group of customers.

It is believed the Government had been thinking of easing cash limits set for the electricity industry in the current financial year. But it appears the industry will manage to keep within its cash limits for 1980-81 because of reduced inflation rates.

The plans mark a small step back by the Government which has maintained a tough line on energy pricing in spite of increasing pressure from industry.

The pressures on Ministers to give manufacturers help with energy costs will increase when the Confederation of British Industry completes a wide-ranging international study of relative energy prices.

The CBI had hoped to present the findings of this study to its annual conference next Monday. But it is understood the findings will not be ready.

Representatives from the CBI, including Sir Terence Beckett, director general, called on Mr. David Howell, Energy Secretary, on Friday for an informal meeting. They told him the study's preliminary results confirmed that British industry was bearing unfairly high energy costs compared to foreign competitors.

The CBI leaders expect to see Mr. Howell again when the study is completed, probably in about a fortnight's time.

Chrysler Financial asks for loan

BY IAN HARGREAVES IN NEW YORK

CHRYSLER FINANCIAL, the dealer and retail financing arm of the Chrysler Motor Company, has asked its European banks to lend it an additional $50m-$100m (£21.5m-£43m).

The request, which has taken lenders in the U.S. and Europe by surprise, is seen by some as a breach of the terms of the $1.5bn U.S. Government rescue programme which earlier this year saved Chrysler from otherwise certain bankruptcy.

Although the banks agreed to many concessions in this rescue, they refused to put any new loans into Chrysler. Several bankers say they see no chance of Chrysler Financial raising new loans now.

Chrysler confirmed that it is "actively negotiating" in the European market for an infusion of $50m, although financial sources say the company also expressed interest in an additional $50m loan.

Chrysler Financial, which is an unconsolidated subsidiary, needs cash urgently to allow it to provide loans to Chrysler's dealers and customers as demand strengthens for the company's products.

Because of Chrysler's still precarious financial condition, the company is not able to borrow money in the usual way favoured by large industrial finance companies, on the commercial paper market. It is forced to try to raise more expensive funds through its banks.

It was the loss of Chrysler's commercial paper rating last summer which precipitated the company's crisis.

The situation is also complicated because under the terms of the Government-backed rescue deal Chrysler is supposed to use its best endeavours to find a purchaser for 51 per cent of Chrysler Financial.

Renault of France, which is the largest shareholder in American Motors, the smallest of the U.S. car-makers, is still said to be interested in taking such a stake. Household Finance, the large U.S. finance company, has also shown interest in the past.

If the stake could be sold to a sound company Chrysler Financial might regain its commercial paper rating and the problem would be solved. If that does not happen, it is impossible to say at this stage how Chrysler Financial will raise the funds it needs to avoid a gradual decline in its ability to make loans.

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Fraser announces Government changes

By Patricia Newby in Canberra

MR. MALCOLM FRASER, Australia's Prime Minister, yesterday announced a major reshuffle of his government after his win in the federal election on October 18.

Mr. Fraser's Liberal-National Country Party coalition has a 23-seat majority in the 125-seat House of Representatives.

Mr. Andrew Peacock, Foreign Minister for the past five years becomes Minister for Industrial Relations and Mr. Tony Street, the former Industrial Relations Minister takes over foreign affairs

In other changes, Mr. Vic Garland, former Minister for Business and Consumer Affairs, has been appointed High Commissioner in London

Mr. Peacock has indicated for some time that he would like a domestic portfolio. Successful handling of such a tricky ministry as industrial relations would certainly enhance his chance of inheriting the leadership of the Liberal Party from Mr. Fraser.

Although Mr. Peacock was beaten last week for the deputy leadership by the incumbent Mr. Phillip Lynch, the Industry and Commerce Minister, he is still considered a possible threat to Mr. Fraser.

Political commentators believe that Mr. Lynch has risen as far as he is likely to and that the next challenge for the deputy leadership will see either Mr. Peacock or Mr. John Howard, the Treasurer emerge victorious. Both men are 41.

New ministers are Senator Peter Baume (Aboriginal Affairs), Mr. John Moore (Business and Consumer Affairs); Mr. Michael Hodgman (Capital Territory), Mr. Tom McVeigh (Housing and Construction) and Senator Tony Messner (Veterans Affairs).

Patrick Cockburn examines the pressures behind Iran's move on the U.S. hostages

The Majlis finally takes Khomeini's cue

BY DECIDING on the terms under which the 52 U.S. hostages will be released, the Iranian Majlis (parliament) has finally followed Ayatollah Khomeini's directive earlier in the year that it alone should deal with the fate of the hostages.

But it is unlikely that yesterday's proposals (see box) would have emerged without pressure from Ayatollah Khomeini's office and a change of attitude by the fundamentalist Islamic Republican Party (IRP) which claims a majority in the Majlis.

The proposals now put to the U.S. are virtually the same as those proposed by Ayatollah Khomeini on September 12. This allowed the IRP and other deputies to make relatively moderate demands without being denounced as quislings of the U.S.

While U.S. diplomats have continually complained that they have never been sure who had sufficient power in Iran to deliver the goods, yesterday's events show that the IRP does have such strength.

The problem for politicians inside Iran since the U.S. embassy was stormed a year ago has been that so many of them had used the hostage issue to rise to power. The takeover of the embassy destroyed the Government of Mr. Mehdi Bazargan. Iranian President Abolhassan Bani-Sadr and the clerical fundamentalists of the IRP used the renewed militancy which followed the taking of the hostages to secure their positions.

This made it difficult for them to advocate any agreement with Washington and President Bani-Sadr badly damaged his authority when he attempted to do so in February.

The death of the Shah at the end of July removed the most emotive demand of the militant students who had distributed the hostages around Iran in the wake of the abortive raid by the U.S. to free them.

But even then the students could still count on significant popular support. When they called for a midnight rally to show support for Iranian students arrested in Washington, were then 250,000 people gathered outside the U.S. embassy. Only the beginning of the war with Iraq forced them into the political background.

The retention of the political initiative by the militant students was partly a result of the division of authority in Iran between different power centres. The President and the IRP were at one stage unable to agree a prime minister or a cabinet. Only when the Premier, Mohammed Ali Rajai, was elected, did the fundamentalist clerical leaders feel strong enough to tackle the hostage issue.

They are aware now that the hostage issue, so useful to them in the past, could be used by their enemies. The appearance of Ayatollah Khalkali, Iran's hanging judge, made good television when he was seen last week, bereft of turban at the rostrum in the Majlis building, denouncing deputies who had boycotted the debate on the hostages' release.

But more important has been the studied moderation of IRP leaders such as Ayatollah Behesti, the speaker of the Majlis, Hojatoleslam Hashemi Rafsanjani, and Mr. Hassan Ayat, none of whose names excite much interest in the West.

Why have they moved so quickly now?

The war with Iraq certainly gave much of the leadership in Tehran a sense of their own isolation. It is doubtful that the delivery of U.S. spare parts will make much difference to the Iranian war effort, though it is clearly possible that Iranian politicians and generals will think that it will.

The crucial problem which President Carter will have most difficulty in resolving is that of the Shah's fortune and the frozen Iranian assets in the U.S. Popular feeling in Iran is that the Shah and his family salted away much of Iran's wealth.

Ordinary Iranians mention a figure of $32bn or more and it will be difficult for political leaders in Tehran to explain to them that not only are they not going to get any of this but that the assets which the U.S. Government admits belongs to Iran will be difficult to extract from a tangle of legal claims and court proceedings.

This puts the leading clerical figures in the IRP in a difficult position. Having publicly associated themselves with pushing through the Majlis the conditions under which the hostages will be released, they are politically vulnerable in Tehran if they cannot soon show that they have got most of what they asked for.

The final resolution of the hostage crisis may once again require the intervention of Ayatollah Khomeini

BEIRUT—The following is the English-language text of a list of conditions debated yesterday by the Iranian Majlis for the release of the 52 U.S. hostages in Iran. The list was distributed by Iran's Pars news agency.

"The Islamic consultative assembly, the Majlis, met this morning. The special commission on the hostages submitted their report to the Majlis. This report is based upon the proposals made by the Imam (Ayatollah Khomeini) on the subject of hostages. The proposals are as follows:

"1.—Due to the interference of the U.S. in the internal affairs of Iran, political, military, economic, the U.S. must now make a firm commitment to avoid all direct or indirect political and military interference into the affairs of the Islamic Republic of Iran.

"2.—Unfreezing all Iranian assets in and outside the U.S. These assets should be put at the disposal of the Iranian Government, in order that we may utilise them in every possible way. The presidential order of November 14, 1979, which blocks our assets should be declared null and void by presidential order. Financial relations would continue as before this presidential order, with the removal of economic blocks and all consequent effects. All legal procedures must be taken to void the presidential order concerning the confiscation of Iranian properties by the U.S. courts. Guarantee the security and free transfer of these properties must be made. No private U.S. citizen or resident of the U.S. may make a claim against these properties.

"3—Cancellation and annulment of economic and financial actions and measures against the Islamic Republic of Iran must be made. Legal procedures should be implemented to cancel and annul all claims against Iran. These claims might be presented by an official or unofficial citizen, an American company or the American Government. In the case of any type of claim made against Iran or any Iranian citizen, in any court of the United States in connection with the Islamic Revolution of Iran and the seizure of the nest of spies (U.S. embassy) and the arrest of U.S. citizens in Iran, the U.S. Government should guarantee to answer and pay any consequent damage or expenses caused by the conviction of Iran or any Iranian citizen.

"4—The properties of the deceased Shah must be returned. The United States Government should officially recognise the right of the Iranian Government to the deceased Shah's wealth and that of his close relatives. According to Iranian law, these properties belong to the Iranian nation and Iran should be able to control them. The President of the U.S. should issue a proclamation to this effect, and take all legal and administrative actions necessary to transfer these properties to Iran."

Ayatollah Khomeini . . . still dominant

Ayatollah Beheshti . . . studied moderation

Carter may find Iran's demands hard to meet

BY JUREK MARTIN, U.S. EDITOR IN WASHINGTON

PRESIDENT JIMMY CARTER can meet only one of the four demands for the release of the U.S. diplomatic hostages laid down by the Majlis without difficulty or delay. Fulfilment of the other three is neither practically nor legally straightforward and may require some understanding on the part of the Iranian authorities.

Clearly no problems exist in the President pledging non-interference in Iranian internal affairs. With the stroke of a pen he could unfreeze the estimated $8bn worth of Iranian assets he locked up nearly a year ago by Presidential fiat, but the swift return of anything like the full amount to Iran is almost certain to be mired in a profusion of legal claims.

Locating and releasing the assets of the Shah and his close relatives is no easy matter either. While President Carter is able to cancel the trade embargo he imposed on Iran, he has no authority to deal with the second part of the demand, to stop private lawsuits against Iran. If, as is widely assumed, the Shah's wealth has been widely dispersed around the world, the President has no jurisdiction to order its return. No precise inventory has been drawn up of the disposition of the Shah's assets, though rough estimates could be quickly obtained.

Mr. Edmund Muskie, the Secretary of State, stressed in a TV interview yesterday that it was still not clear exactly what Iran was asking for. On the question of the Shah's assets, for example, he said it was not known whether Iran was demanding "confiscation" or simply "identification"—implying, of course, that the latter was much easier to meet.

But he repeated what he has said many times before: "If they undo what they did, we'll undo what we did" in the freezing of assets, the imposition of trade sanctions and the condemnation of the hostage taking in every possible international forum.

U.S. officials were, however, drawing some encouragement from the signs from Tehran that Iran wants to move to settle the hostages issue. The determination of the hard-line Islamic Republican Party to at least get negotiations in train before the U.S. Presidential elections tomorrow is one positive harbinger.

President Carter . . . authority limited

In a TV interview yesterday, Mr. Sadeq Qotbzadeh, the former Foreign Minister, also intimated that Iran was prepared to be flexible on the key points. Although he speaks with no authority these days, the U.S. hopes that the familiarity of Mr. Qotbzadeh and others with the U.S. legal and constitutional system may have filtered down to those in Iran who had previously been uncompromising.

There is, however, great reluctance here to discuss another aspect of any deal with Iran—the possibility raised by the Majlis that the hostages would only be freed in groups, the release of each group being contingent on U.S. compliance with each of Iran's terms.

At a Press conference on Saturday, Mr. Muskie was at pains to suggest that the actual negotiations with Iran could take some time.

One key element in such bargaining is the military component of the frozen Iranian assets. The U.S. is clearly unwilling to be seen to "tilt" too sharply to Iran in its present conflict with Iraq. It would prefer not to release all the $500m worth of spare parts and equipment at once, but only to agree to ship the least sophisticated offensive weaponry.

Israel plans warplane sales to Mexico

BY DAVID LENNON IN TEL AVIV

Israel is planning to invite representatives of Latin American countries to Israel to study the purchase of the Kfir combat aircraft now that the U.S. has lifted its four-year ban on sales of the aircraft to Latin America.

Last week, it was revealed that the U.S. State Department had given Israel permission to offer the Kfir to Mexico, which is also considering the U.S.-made F-5E fighter. There have also been unconfirmed reports that Columbia is interested in the Israeli aircraft.

The American veto derived from the fact that the Kfir is powered by the U.S.-made General Electric J-79 engine. At the time of the ban, Washington said it opposed the re-export of sophisticated American military technology to Latin America.

The American change of heart "could open big horizons" for Israel's defence industries, according to Mr. Mordechai Zippori, the deputy Defence Minister. Israel is, however, concerned that the publicity given to the decision could expose potential customers to counter pressure from Arab states and U.S. aircraft manufacturers.

Mugabe threat to expropriate white land

By Our Salisbury Correspondent

ZIMBABWE'S frustration at what it considers disappointingly low levels of international aid from Western countries has surfaced with a reported threat by Mr. Robert Mugabe, the prime minister, to expropriate white farm land without compensation.

Mr. Mugabe was said to have made the threat when he addressed a meeting of black tribesmen in the Mount Darwin area of north-east Zimbabwe.

He accused Britain of failing to meet its pre-independence promises to provide funds to compensate white farmers for any of their land taken over.

He said his government wanted farmers to surrender some of their land and would have to look to Britain for compensation "because we have no money to pay them and do not feel inclined to pay for land plundered from the indigenous people by the colonisers."

Although the government has started on its own programme of land re-distribution and resettlement using its own funds as well as aid from overseas, expectations of more and better land are high among the rural population.

Last month it was announced that £20m of the British aid package of £75m would be earmarked to purchase 1.1m hectares of land and re-settle 18,000 families, but officials stress that this is only scratching the surface.

Meanwhile, relations between the Nkomo and Mugabe wings of the governing coalition worsened again with the Prime Minister's accusation that it was Mr. Nkomo's ZIPRA guerrillas who were responsible for last week's outbreak of violence at the north-eastern town of Mtoko and in the Salisbury suburb of Chitungwiza.

FINANCIAL TIMES, published daily except Sundays and holidays. U.S. subscription rates $365.00 per annum. Second Class postage paid at New York, N.Y., and at additional mailing centres.

UK NEWS

Prior must act in training boards finance deadlock

BY ALAN PIKE

THE Manpower Services Commission has been unable to reach agreement on whether industry should in future become responaible for financing idustrial training boards.

Proposals to transfer the cost to industry are at the beart of a widespread examination of the 1973 Employment and Training Act carried out earlier this year by a review body of the Commission.

Arguments

But as a result of disagreement between TUC and Confederation of Britisb Industry representatives, the commission will now have to report to Mr. James Prior, the Employment Secretary, tbet it bas no egreed view on the issue.

It is calculated that an end to the present system of Government funding, with companies becoming responsible for the bulk of the costs of the 24 training boards, would currently cost industry an extra £51m a year.

CBI representatives on the review body reserved their position on the recommendation tbat industry should fund the boards, although the report said they appreciated the "logic and arguments."

It has become apparent from responses to the report, however, that there ia widespread bostility to the plan among companies.

Many employers bave argued that, with industry under severe pressure from the recession, it cannot be expected to carry any extra burden at present.

Welcome

There are also fears that if companies were forced to finance the boards, they would simply reduce spending on other aspects of training at a time when apprentice intake, for example, is already declining.

The TUC, however, strongly supports the financing of training boards by industry. In an unsuccessful attempt to reacb agreement with tha CBI, it offered to accept a pbased transfer of funding to be completed by 1985.

It ia expected that, in the absence of an egreed view, the commission will outline the positions of both sides of industry to Mr. Prior, with whom final decisions on the report will rest.

Legislation would be required to change the method of funding tbe hoards which, under the 1964 Industrial Training Act, were originally financed by industry.

It has been suggested that the Government — apart from welcoming the public spending savings involved in making the chenge — might be attracted to the view that, since industry benefits from training fecilities, It should be responsible for paying for them.

Value of contractors' overseas work falls

By Michael Cassell

A BIG FALL in the value of overseas work being done by UK contractors is revealed in figures released by the Department of the Environment.

Tbe figures reflect the growing difficulties encountered by British building and civil engineering companies in finding foreign contracts and come at a time when their domestic workload has reeched one of its lowest ebbs in post-war years.

According to the DoE, the current price value of overseas projects carried out during the 12 months to the end of last April was £1.29bn, a fall of 20 per cent from the previous year's level.

At the sime time, the current price value of new contracts won totalled £1.3bn. Theugh this approximates the 1978-79 figure it implies a sharp drop in new business when expressed in constant terms.

The value of contractors' work outstanding at the end of April stood at £1.5bn against £1.6bn a year earlier.

Britisb companies associated with the construction industry notched up a buge £2.74bn in overseas earnings in 1979-80, with consulting engineers, architects and surveyors accounting for £470m of the total. Exports of construction materials contibuted £2bn in earnings.

The Middle East markets remained the most important for Britisb companies, providing nearly half of all the contracts won. While the United Arab Emirates was again the largest aource of new work, there was a growth in orders from Saudi Arabia and Egypt.

Construction orders also rose in North and South American markets, with the value of contracts reacbing £270m, three times the level acbieved in the year before and twice as high as in any previous year. The DoE says the 20 largest UK construction companies again took over 90 per cent of the work won, although 19 others won overseas contracts for the first time.

Engineering employers resist 'unacceptable' training costs

BY ALAN PIKE

THE ENGINEERING Empleyers' Federation is snpporting the Confederation of Britisb Industry's epposition to employers bearing the cost of industrial training boards.

The federation, in evidence published today, says: "The imposition ef an additional cost burden on employers in the present economic conditions is quite unacceptable."

In its respense to tbe Manpower Services Commission report, wbich proposes the change, tbe Federation also opposes a recommendation that the existing 1 per cent statutory limit on the levies which training boards can impose, should be lifted.

It has told the commission and Mr. James Prior, Employment Secretary, that there sbould be an examinetion of the scope fer reducing the number of training boards.

"The present arrangements tend to canse duplication of administrative and training work. A slimmer structure would eliminate waste, provide savings and reduce costs."

While some large engineering companies with their own well establisbed training systems helieve that the Engineering Industry Training Beard is unnecessary, the federatien's evidence says the general view is that it should be retained and sbould concentrate on practical training matters. However, there should be an independent investigation into methods of funding the board, and increased employer representatien on it.

The MSC report proposes that its recommended changes in tbe recommended changes training sbould take place in 1982-83. But the EEF says that if the changes lead to any increased costs for industry, implementation "must be delayed until the industry is in a hetter position to shoulder any such additional burden."

'Gang of four' lobby for ethane route

Sue Cameron asks who should control North Sea gases once landed?

PERSUASION THAT they should control the supply of North Sea gases for use as petrochemical raw materials has been stepped up by Shell, Esso, BP Chemicals and Imperial Chemical Industries.

The heavy gases will be brought ashore to St. Fergus, on Scotland's north-east coast, via the planned £1.1bn gas-gathering offshore pipeline. The row is about who should control the gases once landed.

ICI, BP Chemicals, Shell Chemicals UK and Esso Chemical want the ethane gas-stream to go south, for use in their existing plants, rather than west, to a proposed petrochemicals complex at Nigg Bay on the Cromerty Firth.

Five days ago the four companies met Cabinet Ministers, to explain wby their scheme sbould take precedence over the Nigg plan.

The argument is likely to intensify because a group of banks led by the Bank of Scotland and Baring Brothers is reedy to finance tbe start of construction work on the pipeline project. This could add urgency to the onsbore fight about ethene supplies.

Tbe Nigg lobby has put a powerful case and created a disproportionate amount of anxiety at Shell, Esso, BP and ICI by successfully dubbing them the "Gang of Four."

But the four have finally responded. The case they put to the Secretaries of State for Energy, Industry and Scotland last Wednesday is a strong one, doubtless strongly put. But whether it is better than that advanced by the Nigg lobby remains in question

The Nigg lobby is divided. One leading member is the U.S.-based Dow group, which outlined a £400m plan for building a petrochemicals plant at Nigg using ethane as a raw material.

But UK-based Highland Hydrocarbons has a rival plan to build a bigger petrochemicals complex at Nigg and to run it on a common-user basis. The Highlend scheme also provides for some of the gasea to go south for use in tbe four's plants.

Another contender in the general race is the U.S.-based Occidental, which wants to use the gases at a comparatively small plant it wants to build at Peterhead, near St. Fergus. Occidental's plan means there will be probably enough ethane to feed both a Peterhead plant and either a Nigg plant or the existing southern plants.

But not until the 1990s will there be sufficient gas from the offshore pipeline to supply both a Nigg complex and existing plants at Grangemouth and Mossmorran in Scotland and Wilton, Teesside.

The fight for control of the gases is intense because it is more economic to make ethylene, the so-called building block of the petrochemical industry, from ethane than from oil-based naphtha. The four, like the rest of the Western European chemical industry, are almost entirely reliant on naphtha as feedstock.

Whoever wins will be in a stronger competitive position than other, nephtha-based producers, especially now when Europe's petrocbemical companies, including the UK four, are in a parlous state due to overcapacity and the world recession. This gives an edge of desperation to the voice of the "Southern Four," as they prefer to be called.

The case they advanced on Wednesday was founded in that:

- the existing UK petrochemical industry could and almost certainly would be seriously damaged if "outsiders" were allowed initial control of the ethane;
- their scheme would cost less then the alternatives — £150m against £200m, £400m or £800m;
- their plan to convert their existing plants from napbtha to gas feedstocks and to build an onshore pipeline from St. Fergus to the South could be operational years before the other schemes; and,
- the time factor could save Britain at least £300m — the added value that would be lost while the gases were left in the North Sea or burnt in power-stations instead of being turned into petrochemicals profitably.

The claim that the UK petrochemical industry would be damaged by outsiders is undoubtedly true but it is also a call for protectionism.

Nigg lobby members predict that the Southern Four will make allegedly empty threats to close some of thei r existing plants unless they are favoured.

The reel question is whether the present UK petrocbemical producers ought to be given special protection. It could be argued that if they were worth protecting they should have spotted the potential in North Sea gas earlier. Dow did when it bought 1,600 acres of land at Nigg.

The four say the picture was altered completely by the Iranian revolution and the leap in world oil prices last year. They say tbat until 1979 the oil-based naphtha was quite able to compete against gas as a petrochemicl feedstock.

The Southern Four's argument on cost seems a week one, too. Their scheme would be cheaper than the alternatives, but for whom?

Some would say that costlier, green-field development schemes at Nigg would mean greater new investment in Britain.

The four are on stronger ground in timing. They reckon the UK industry, regardless of who belongs to it, will lose £100m every year the gases, notably the ethane, are not made into petrochemicals. The figure is based on the cost-differential between heavy fuel-oil and the more expensive naphtha.

OVERSEAS NEWS

REPUBLICAN CONFIDENCE WANES

Why California may turn its back on Reagan

BY DAVID BUCHAN IN LOS ANGELES

A CARTER victory in California, Mr. Ronald Reagan's home sanctuary? Ridiculous, say Republicans here, but they fear the electoral impact of the latest developments concerning the American hostages in Iran, and none would now place money that Mr. Reagan has the 45 electoral votes of the country's most populous state locked up.

The long-shot hopes of the President, who had planned to make the golden state his very last 1980 campaign stop today, are hased on a recent Democratic poll showing him less than 5 per cent behind Mr. Reagan in California.

For the hard-driven Mr. Carter an upset California victory could either tip a surprise landslide on top of Mr. Reagan, or, in defeat, provide him the ironic consolation that Mr. Reagan had at least been rejected by the very voters who know him best.

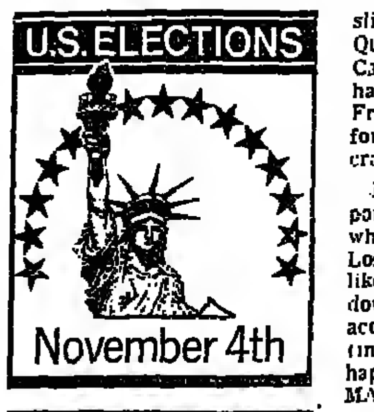
Mr. Reagan—"Governor" as he is still honorifically called from his two terms in the Sacramento State House—has the cards stacked in his favour. His 1966-74 Admioistration is in general benignly remembered, though it was not the glowing success Mr. Reagan promises he could repeat in the White House.

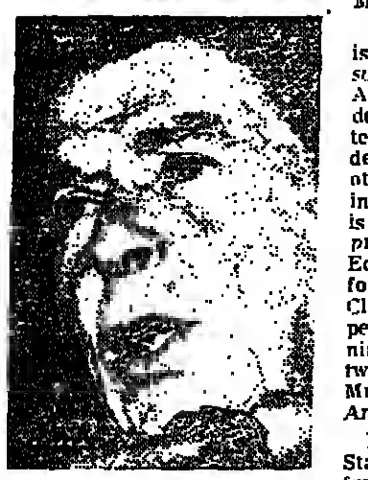
Taxes did go up, but not by the amount they would have without Mr. Reagan's spending cuts. His Administration attracted no serioua scandal, uousual for so long a period in so large a local government.

California is too large and self-confident to bave the parochialism of smaller states. But many Californians who do not openly root for Mr. Reagan are not immune to a desire to see one of their number hack in the White House, if only to redress the hash the last Californian president—Richard Nixon—made of it.

A Reagan victory would mean top johs for Californians too. In a sense, the nomination, with Mr. Reagan's explicit approval, of Mr. A. W. Clausen of the California-based Bank of America to head the World Bank was a foretaste of wbat might follow.

It is Mr. Carter's problem across the country that Republican voters tend to be more highly motivated to go to the polls than traditional Democrats. In California, this negates the 53 = 38 per cent edge in registration tbat Democrats still have over Republicans.





Ronald Reagan . . . under pressure

Despite the efforts of the black mayors of Oakland and Los Angeles with the black community, of Senator Edward Kennedy, with Mexican Americans, of Vice-President Walter Mondale with trade unions, and messages from Mr. Ezer Weizman, the former Israeli Defence Minister, who has been touting the Carter cause to Los Angeles' big Jewish community, there is not mucb enthusiasm for President Carter. Governor Jerry Brown has stumped for his erstwhile rival, Mr. Carter, but the Governor's flop this year in winning only one delegate in the primaries has severely knocked his credibility.

And there is "the Anderson factor." As everywhere, the independent candidate has slipped in the polls. But Quixotic quests thrive in the California air, John Anderson has natural turf in the San Francisco area, nursery of California liberalism which a Democrat would otherwise harvest.

He is also not without support in Southern California where he held a Saturday night Los Angeles rally, accompanied like all politicians campaigning down here by the inevitable acolyte from stage or screen (in his case, one of the scalpel happy "surgeons" of the MASH television series).

Republicans claim Mr. Reagan is getting a fair share of the support now deserting Mr. Anderson, hecause independent voters had been embittered by the Carter attempts to derail the Andersnn effort. But other maverick causes do well in California, and one of them is the Libertarian Party, whose presidential candidate is Mr. Ed Clark and which competes for Right-wing votes. If Mr. Clark were to get even the 4 per cent he received when running for mayor of Los Angeles two years ago, be could hurt Mr. Reagan as much as Mr. Anderson will Mr. Carter.

Having Mr. Reagan in the State House is quite different from putting him in the Oval Office, the Carter forces keep reminding Californians. Much media play has been given to the President's 1976 warning that "Governor Reagan couldn't start a war. President Reagan could." By the vagaries of the American system, under which parties are first torn apart in primaries and then supposedly welded together in general elections, the coiner of that slogan is Mr. Stuart Spencer, then a Ford adviser, but now the chief Reagan campaign counsellor.

But Mr. Carter is still the underdog in California—and even more so in the rest of the almost solidly Republican West. He and Westerners never hit it off, since in 1978 he vetoed western water projects in the Federal budget.

In 1976, Mr. Carter lost all the west bar Texas and Hawaii. This year he stands a chance in Oregon but Republicans are still hopeful tbat generally Mr. Carter will do even worse tomorrow than in 1976.

Polish strike alert still in force

By Christopher Bobinski in Warsaw

FOURTEEN HOURS of talks on Friday between the Polish Government and Solidarity, the country's largest independent union, failed to convince the union of the sincerity of the authorities' intentions towards the new free trade unions. The strike alert ordered for November 12 is still in force.

At the weekend the Warsaw branch of Solidarity released the text of a communique prepared after the talks by representatives of both Government and union and which the authorities refused to sign at the last minute.

Friday's talks were called after union protests at the Government's insistence on Solidarity recognising the supremacy of the Communist Party in its articles of registration.

The strike threat is real. After the talks Mr. Marian Jurczyk, a moderate union leader from Szczecin, told the union national committee that a survey in his region had shown that out of 831 factories and institutions only eight had voted against strike action if union demands were not satisfied.

On the insertion by a Warsaw district judge of a clause into Solidarity's articles saying that the union recognised "the leading role of the party in the State" Mr. Jerzy Bafia, the Justice Minister, promised that the Polish High Court would examine the union appeal against the decision by November 10.

The draft communique, if signed, would have confirmed a Government promise that the union would be given permission to publish a national weekly newspaper and details of access to radio and TV were to be discussed.

The Government also promised printing machines donated to Solidarity from abroad, and now held up by Polish customs, would be cleared free of tax and duty. The principles on which a union publishing house would operate "would be determined."

The only union demand which the authorities are evidently unwilling to fulfil is that farmers should have the right to form their own union.

WORLD TRADE NEWS

IATA MEETING

Third World airlines flex muscles

BY MICHAEL DONNE, AEROSPACE CORRESPONDENT

THE WORLD'S airlines go away from this year's annual meeting of the International Air Transport Association conscious of the fact that although they may have settled some of their outstanding problems they still face one of the most difficult periods in civil aviation history.

Not only is the business recession depressing traffic while costs of all kinds are resulting in substantial losses for many airlines, but there are also continuing problems such as the price of fuel and the ever present likelihood of scarcities in various parts of the world.

But a new factor has begun to obtrude itself on the Association's consciousness. This is the emergence of the airlines of the developing world whose numbers are increasing steadily and threatening to erode the influence of the bigger airlines of the developed industrial world.

The background to the airlines' current situation was spelled out by Mr. Knut Hammarskjold, the IATA Director-General, in his annual report last week. With a record number of passengers—390m in 1979, 7.5 per cent more than in the previous year—the airlines made virtually no money. The industry's operating profit was $150m for just over 100 airlines before taxes with a net profit of only $100m.

The general belief among airlines in Montreal during the meeting was that the recession will begin to fade out towards the latter part of next year, and that by 1982 the airlines should be seeing better times. Their big challenge is to survive until then, and in order to do this they are setting themselves firmly against fares cuts where these can be avoided and seeking, instead, fares increases. The possibility of fares rises of 5-10 per cent worldwide by next April cannot be overlooked.

Apart from the price of fuel, which doubled last year and has risen by at least another 25-30 per cent since then with the possibility of further increases during the coming winter, the other inflationary factor facing the airlines is that of user charges—the price they have to pay for landing, parking and taking off their aircraft at the world's airports. These increases have already added up to $100m to their costs in the UK alone this year and will add more if the increases now in the pipeline come to fruition.

All these, however, are external problems which the airlines are geared to face because they have faced them before.

By contrast, a new problem comes from within IATA from the emergence of the airlines of the developing world who are beginning to realise their power in the IATA forum and also how to use it.

This attitude surfaced in Manila last year when the pressures created by those airlines resulted in the creation of the special inquiry under the chairmanship of Brigadier-General Enos Haimbe, managing Director of Zambian Airways. The inquiry's report is, at face value, an innocuous document. But underlying it is a potent, long-term threat to the cosy world of the IATA created by the bigger airlines of the developed countries over the past 30 years.

In effect Gen. Haimbe and his team have served notice on IATA that the old days have gone for ever and that the new era must take account of a situation in which the developing nations' airlines account for more than half of the total membership of the association.

In Montreal they revealed a new face, and showed confidence in their stride. They were still tentative in challenging the precepts of the bigger airlines, such as the latter's right to introduce end-to-end fares that straddle their territory end took little account of their local views. But there was no doubt that the challenge was there, and that it was getting stronger.

Gen. Haimbe's report made it clear that the IATA system was almost in danger of collapse, and that the eventual result of the bigger airlines' behaviour would only be a growth of "regionalism," with the smaller airlines establishing local associations whose basic belief would be to look after their own members' interests first and those of the bigger airlines outside, second.

South African Airways has abandoned plans to beat the ban on overflying African countries by chartering Luxair of Luxembourg to carry out its flights to Athens and Rome, writes Quentin Peel from Johannesburg. Negotiations had been fruitless, SAA said at the weekend. It was understood agreement had been reached to sell a Boeing 747 to Luxair and paint a second jumbo jet in Luxair colours for occasional use. As the two airlines have failed to reach agreement, SAA will continue to provide the twice-weekly flights along a *long route around the bulge of West Africa*

SHIPPING REPORT

Surge in Russian charters

BY OUR SHIPPING CORRESPONDENT

THE MAIN feature of the week in dry cargo markets has heen the surge in chartering activity by the Russians. Brokers report that about 30 ships have been fixed by the Russians as they work to cover the substantial shortfall in their grain harvest.

Denholm Coates, the London shipbrokers, reports that the Russians have concentrated their activity on chartering ships for single round-trip voyages. With one exception they have not been chartering for longer.

Time charter rates in the Atlantic have risen to $9250 per day for Great Lakes-type ships and 40/50,000 tonners are able to command up to $11,500 per day. Surprisingly, the improvement in freight rates has not spread to the larger Panamax sizes (70,000 tonnes) and here rates have eased back to $15 per tonne in the key U.S. Gulf/Continent grain trade.

In the tanker market rates have improved and the going rate for Very Large Crude Carriers (VLCCs) is above Worldscale 35 for the key voyage westwards out of the Arabian Gulf.

However, John I Jacobs notes in his latest weekly tanker report that the improvement in freight rates has coincided with a rise of over a quarter in the cost of fuel during the last month. For a steam turbined-powered VLCC the cost of extra bunkers on a round trip from the Gulf to Europe is about $360,000

World Economic Indicators

TRADE STATISTICS

		Sept. '80	Aug. '80	July '80	Sept. '79
UK £bn	Exports	3.922	3.958	4.032	3.610
	Imports	3.553	3.895	3.771	3.720
	Balance	+0.369	+0.063	+0.261	−0.110
France Frbn	Exports	40.928	40.752	40.974	38.520
	Imports	46.358	44.770	47.639	40.307
	Balance	−5.430	−4.018	−6.665	−1.787
Germany DMbn	Exports	29.4	24.2	29.2	25.1
	Imports	27.8	24.3	29.1	23.3
	Balance	+1.6	−0.1	+0.1	+1.8
Japan U.S.$bn	Exports	11.517	10.200	11.241	9.199
	Imports	9.541	9.870	11.128	9.022
	Balance	+1.976	+0.330	+0.113	+0.177
U.S. $bn	Exports	18.701	19.103	18.075	15.822
	Imports	19.465	19.236	18.995	18.407
	Balance	−0.764	−0.132	−0.920	−2.585
		Aug. '80	July '80	June '80	Aug. '79
Netherlands Flbn	Exports	10.512	11.059	11.884	10.163
	Imports	11.472	12.025	13.338	11.280
	Balance	−0.960	−0.966	−1.454	−1.117
Italy Lirebn	Exports	4,951.0	5,360.0	5,704.0	5,032.0
	Imports	6,590.0	7,127.0	6,715.0	4,451.0
	Balance	−1,639.0	−1,767.0	−1,011.0	−518.0
		May '80	April '80	March '80	May '79
Belgium BFrbn	Exports	151.602	176.862	173.96	145.416
	Imports	163.115	182.890	196.00	156.551
	Balance	−11.513	−6.028	−22.04	−11.135


UP
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SPECIAL
1st PRIZE
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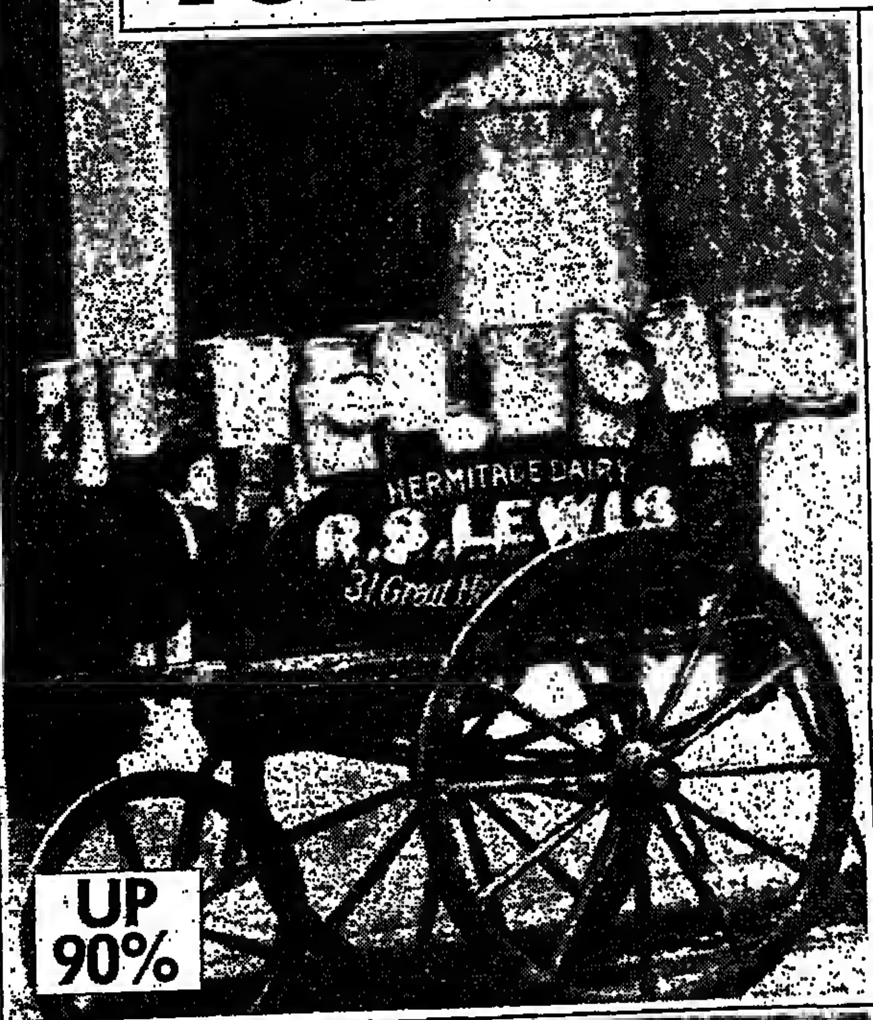
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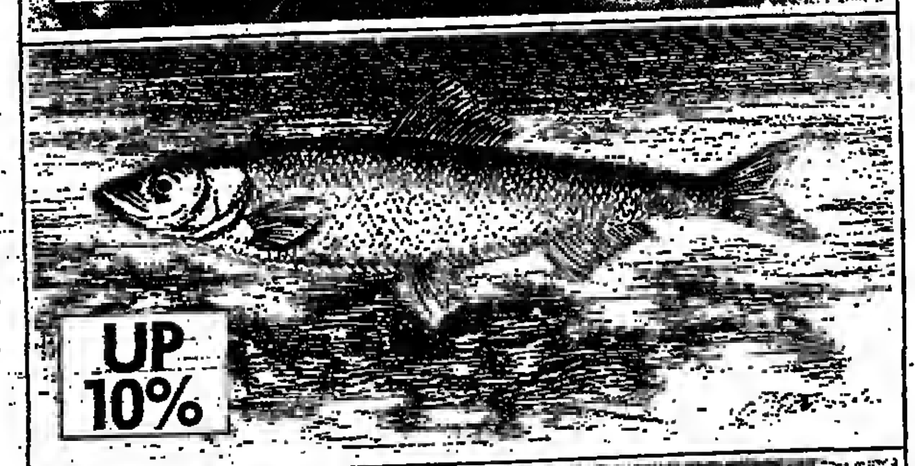
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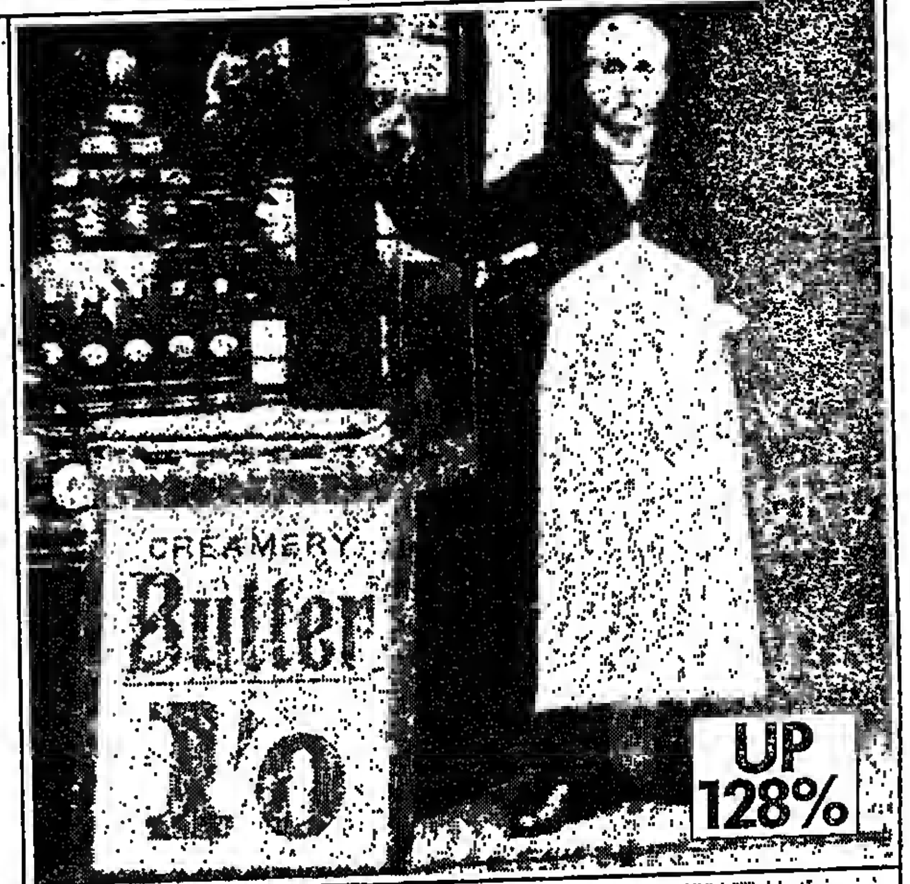
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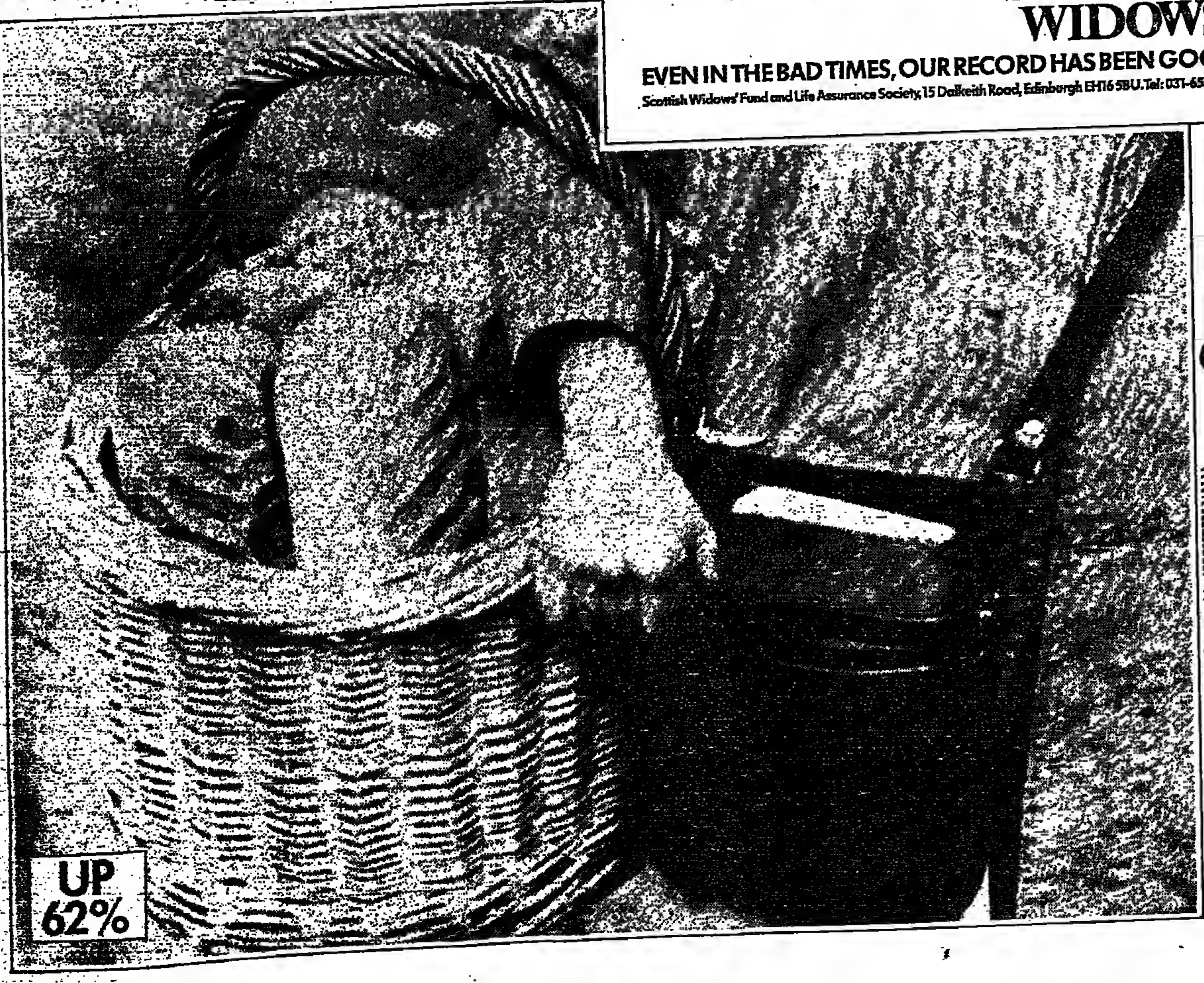
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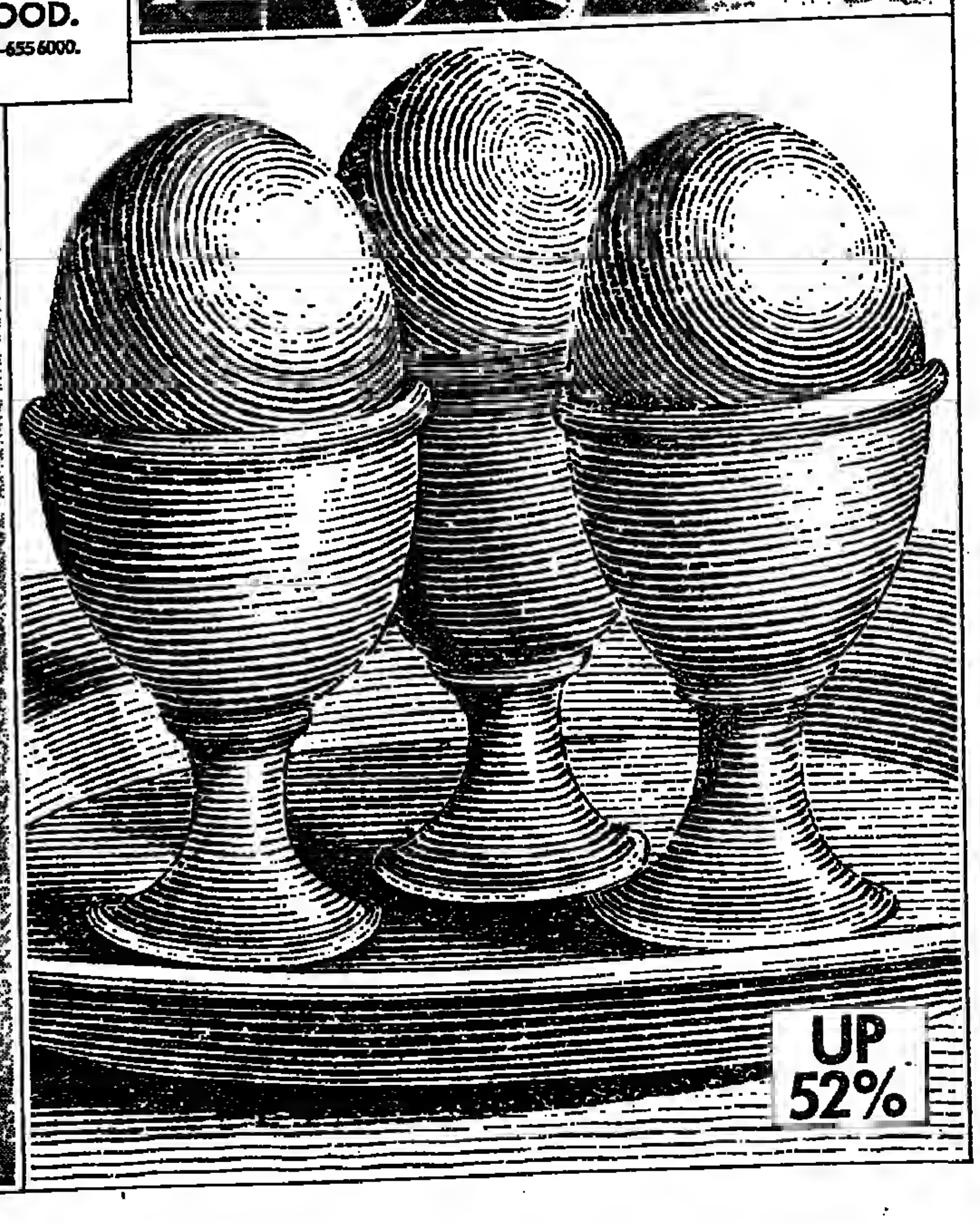
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UK NEWS

Recovery year seen as 1982

BY PETER RIDDELL, ECONOMICS CORRESPONDENT

BRITAIN FACES another grim 12 months of falling output and profits says the London Business School in its Economic Outlook, published today. But prospects for after 1981 are brighter as inflation declines and domestic demand recovers.

The Outlook is produced by the school's Centre for Economic Forecasting. It says that if monetary policy is now tightened in line with the medium-term financial strategy the reduction in the inflation rate which has already occurred can be continued over the next four years.

The annual rate of consumer price inflation could average 8½ per cent in 1982 and about 6½ per cent in the following two years. On this basis, output, measured by real Gross Domestic Product, should recover strongly in 1982—up by 2.4 per cent, after falling by 0.6 per cent next year — and should grow by 1.9 and 1.8 per cent in 1983 and 1984.

The main causes of recovery in 1982 are a strong trade performance as the world economy grows; a rise in investment as company profits are restored; a rise in consumer spending as the inflation rate falls; and a rebuilding of stock levels.

However, the prospects for unemployment are poor. Although the recent rapid increases should not continue after next year, the total is still likely to rise slowly. The adult total in Britain is projected to be an average of 2.2m in 1982.

The next steps in the Government's strategy are considered by Dr. Alan Budd and Mr. Geoffrey Dicks, in the economic viewpoint. They compare the current position with the previous cycle. They conclude that this time the inflationary consequences of monetary expansion have come through more rapidly.

The authors examine the impact of the corset distortions. They conclude that money supply has effectively been growing at an annual rate of 15 to 16 per cent for the past three years. They say there must be a steady reduction in monetary growth from now onwards if the Government is to maintain its current progress in reducing inflation.

It is assumed that, because of the current overshooting, the target for monetary growth will have a centre range of 6 per cent in 1981-82.

On the usual unchanged-policy assumptions, public-sector borrowing in 1981-82 is tentatively estimated at about £9½bn. This will make achievement of the monetary target extremely difficult.

Dr. Budd and Mr. Dicks say that one way around the problem would be to set cash limits —rigorously defined as the "permitted increase in public spending at current prices"—at 6 to 7 per cent. in line with the monetary target. This would produce a public-sector borrowing saving of £2½bn compared with the forecast.

This would allow relief to be given to the corporate sector, for example, by reducing employers' national insurance surcharge.

The authors estimate that in later years the medium-term strategy should be consistent with cuts in taxation (corresponding to a reduction in the basic rate of income tax to 25 per cent by 1983-84), on the assumption that announced public spending plans are not exceeded.

They suggest that "on past experience the danger point will be around 1983, or possibly earlier, when the economy will be growing more strongly. It will coincide, we believe, with notable success in cutting inflation. The temptation to embark on a fiscal expansion, as in 1978, will be very strong.

"It may seem premature, at a time when the economy is still deep in recession and inflation is still at 16 per cent, to talk of the possible problems of success. But the whole point of the medium-term strategy is that it is intended to provide a policy commitment over many years and it cannot be too early to warn of the dangers of departing from it in the future."

LONDON BUSINESS SCHOOL FORECASTS
(June projections in brackets)
Percentage annual change in real terms

	1980		1981		1982		1983		1984
Consumer spending	0.2	(0.2)	0.8	(−0.5)	1.6	(1.8)	1.1	(2.3)	1.3
Exports	1.4	(3.4)	−0.4	(0.9)	3.1	(2.7)	3.4	(2.6)	2.6
Imports	0.2	(−0.8)	0.0	(−1.6)	2.5	(1.9)	3.6	(3.4)	3.2
Gross Domestic Product	−2.5	(−2.3)	−0.6	(−0.4)	2.4	(1.9)	1.9	(1.6)	1.8
Consumer prices	16.9	(18.2)	12.0	(15.5)	8.5	(8.9)	6.5	(7.5)	6.4
Money supply (M3)	15.0	(8.8)	8.2	(7.8)	6.5	(6.4)	6.6	(6.5)	6.0
Current account (£bn)	0.1	(−1.9)	−1.4	(0.25)	−1.4	(2.03)	−1.5	(1.85)	−2.6
Adult unemployment (m, Great Britain)	1.5	(1.5)	2.0	(1.84)	2.2	(2.04)	2.2	(2.15)	2.3

Mr. Michael Beenstock, in a separate briefing paper, examines the current debate about monetary policy. He concludes that if public-sector borrowing affects the money supply it should also have a direct influence on inflation.

The Government should therefore be less preoccupied with sterling M3 and lay even greater emphasis on public-sector borrowing. It should avoid sinking its energies into money base control which is, at most, advisable as a precaution. To avoid further money-market disturbances the authorities should revert to a floating rate policy for Minimum Lending Rate.

In detail, the Business School forecasts that public sector borrowing should decline from £9.9bn in the current financial year to £9.4bn in 1981-82, to £4.7bn in 1982-83, to £2.3bn in 1983-84, and to £3.3bn in 1984-1985. This is on the basis of unchanged policies and in part reflects the growing contribution of North Sea oil revenue.

The Business School is generally optimistic about the monetary outlook, assuming a marked deceleration in the rate of monetary growth and a fall in MLR from 16 per cent now to an average 12 per cent next year, 10 per cent in 1982, and 10 per cent in the following two years.

Sterling is assumed to depreciate next year. The trade-weighted index, which is forecast to appreciate by 9.2 per cent this year, is projected to decline from an average fourth-quarter 1980 level of 75 (1971=100) to 68 by the end of 1981, and to 65 by the end of 1982. On an average year-on-year basis this indicates declines of 6.9 and 4.7 per cent.

After the recent sharp fall in consumer spending, more or less uninterrupted if modest, growth is expected for the rest of the forecast period.

This reflects the combination of a deceleration in the rate of inflation, which is expected to produce a one point a year fall in the savings ratio over the next three years, and the expectation that direct taxes can be cut from 1982 onwards.

The squeeze on the corporate sector is expected to continue. Company profits (excluding stock appreciation and North Sea oil profits) are expected to drop by 25 per cent next year, after showing little change on average this year. Consequently the financial deficit of the non-oil corporate sector is expected to reach nearly £9bn next year, or 4.3 per cent of Gross Domestic Product compared with the record 5.4 per cent level of 1974.

The result is expected to be a sharp decline in private fixed investments, with a strong recovery, led by housing, from 1982 onwards.

The expected depreciation of sterling helps exports after 1981 but the fall in imports associated with destocking is now forecast to have run its course.

Although the level of imports is expected to be unchanged in 1981 compared with the average for 1980, the improved economic outlook for 1982-84 is forecast to produce import growth of 3 per cent a year. Consequently, the current account of the balance of payments is projected to move back into deficit over the next four years.

The outlook for earnings has improved. In the next payround earnings are forecast to rise by about 12 to 13 per cent, as reduced profits in the private sector and cash limits in the public sector combine to produce a significant deceleration. This should be maintained over subsequent pay rounds, when earnings rises should settle at about 7 to 8 per cent.

Economic Outlook 1980-84. Vol. 5, No. 1. October, 1980 is available on subscription from Gower Publishing, 1, Westmead, Farnborough, Hants. GU14 7RU.

CBI submits case for abolition of industrial rates

BY JOHN ELLIOTT, INDUSTRIAL EDITOR

THE CONFEDERATION of British Industry is to step up its campaign for a sharp reduction in local authority rates by calling on the Government to examine plans for abolishing all rates for manufacturing industry.

This call will be delivered during a meeting of the National Economic Development Council on Wednesday when Mr. Michael Heseltine, Environment Secretary, will discuss the impact of his Department's policies.

In a paper presented to the council, the CBI says the financial plight of manufacturing industry is "now so serious that consideration must be given to the case for industrial de-rating."

CBI leaders know there is little chance of such a demand being met in the near future, and they have not yet adopted it as formal policy.

But the fact that they are tabling the idea for discussion illustrates their frustration at a time when the Government has failed to provide concessions on their other major economic and industrial demands such as reductions in the levels of interest rates and sterling, abolition of the national insurance surcharge, and cancellation of the four-month moratorium on payment of regional development grants.

Resentment about these issues will be aired at the CBI's annual conference in a week. Local government spending and the burden of rates on industry will be raised at a fringe meeting on the eve of the conference which will be addressed by Mr. Heseltine.

Last month the CBI called on the Government to stop local councils trying to offset public expenditure cuts by raising rates. It estimates that business rates will amount to about £4m in the current year, and complains that the Government has not tried to ease this burden on industry, either by setting ceilings or by allowing widespread payment by instalments.

Referring to the Conservative Party's interest in abolishing domestic rates, the CBI argues in its paper submitted to the NEDC that there is a bigger case for abolishing industrial rates.

Mr. Heseltine will try to counter this attack by pointing to the services that his Department provides for industry. He will outline details of the circular he is about to issue to local councils stressing the need for them to handle planning applications faster and with greater flexiblity.

Public sector borrowing 'may top £14bn in 1981'

BY PETER RIDDELL, ECONOMICS CORRESPONDENT

THE GOVERNMENT faces serious continuing problems with the level of public sector borrowing, stockbrokers Phillips and Drew warn in forecasts published today.

The brokers estimate that even with public spending cuts of £2bn in 1981-82 and with a mildly deflationary Budget next spring, borrowing could reach £12bn in the next financial year. Without these elements, it could be more than £14bn.

Because of the impact of the recession on savings and on bank borrowing, it is possible that a £12bn level of public borrowing could be combined with a 10 per cent rate of monetary growth in 1981-82.

But if no action is taken to reduce borrowing to this level, Phillips and Drew believe this would cast serious doubts on the Government's determination to meet its financial targets.

The level of public sector borrowing might be a major factor leading to a reversal in the downward trend of interest rates as the economy emerges from the recession in late 1981.

Phillips and Drew have revised downwards their inflation forecasts. The annual rate of retail price inflation could be down to 11-11½ per cent by next spring and into single figures a year later.

Whitehall cuts Civil Service jobs by 900

By Our Industrial Editor

THE NUMBER of civil servants employed by the Departments of Industry and Trade has been cut by nearly 900 to 16,300 during the past 18 months.

This includes jobs lost through the abolition of the former Department of Prices and Consumer Protection and the Metrication Board, together with a substantial reduction in the size of common service's divisions which support both Departments.

Some of the cuts result from Government attempts to reduce the amount of form-filling required of manufacturing industry by the Business Statistics Office and other branches of Whitehall.

Mr. David Mitchell, a Parliamentary Under-Secretary of State for Industry, announced three new initiatives at the weekend specially aimed at small businesses. He said a restructuring of quarterly inquiries into manufacturers' sales would cut the number of forms involved by 28,000 a year, saving £500,000 annually in manpower costs at the Business Statistics Office. It will lead to the loss of 100 jobs.

A wider use of sampling in the annual census of production would save 10,000 forms and costs of £125,000. Further savings would be made by reducing the number of questions in the annual minerals' inquiry form.

Overall, the number of civil servants at the Department of Industry has dropped by about 210. This has mainly been carried out by natural wastage.

At a top level in the Department, the number of deputy secretaries has been reduced from seven to five.

The Department's research establishments have shed the most staff so far—120—while regional policy divisions and offices have lost 60.

Only 30 have so far gone from the divisions which "sponsor" individual industries whose work Sir Keith Joseph, the Industry Secretary, relies on for information about how the recession has bit manufacturing industry.

The number of civil servants at the Department of Trade has dropped by about 450 from 7,640 to 7,180.

BL shop stewards face a test of nerve

Arthur Smith reports on a meeting of union leaders which will decide whether to recommend a strike.

BL CARS' management maintains that the 300 senior shop stewards who meet at the Canley Social Club, Coventry, today to decide whether to recommend a strike in pursuit of a 20 per cent pay claim, "bear a heavy responsibility for the future of the company."

The location itself should be enough to remind the stewards of lost opportunities: the Canley site, home of Triumph until 12 months ago, employed nearly 10,000 workers, but is now being run down with the ending of the Spitfire and Dolomite models.

Union leaders are conscious that the past two years have seen not only a rapid cut in production facilities but also a steady stream of defeats at the hands of Sir Michael Edwardes.

In each round of negotiations he has stated his position firmly at the outset, refused to shift ground, and watched the unions bob and weave before eventually acknowledging defeat.

This year he imposed a 5 per cent pay settlement linked to fundamental changes in working practices. He refused to panic in the face of a strike by more than 20,000 workers which halted nearly all car assembly. Instead, he threatened to sack all workers who did not report for duty by a certain date.

The response of national trade union leaders was to attend an 11th-hour meeting at which a form of words was agreed to defuse the situation.

The pay deal went through and with it the controversial new working practices which mean that Longbridge, Birmingham, where the new Mini Metro is produced, already enjoys productivity levels comparable with the best in Europe.

Battered by the success of Sir Michael—the dismissal last November of Mr. Derek Robinson, the Communist convenor at Longbridge, greatly undermined the confidence of the shop steward movement—the unions entered the current pay round diffidently.

Last Monday, when senior stewards met in Coventry to reject the company's 6.8 per cent offer in response to the 20 per cent demand, they bounced the issue back to the workers, calling for factory gate meetings.

Union leaders report that the militancy at Longbridge comes not from the activists but from the shop floor. Workers are complaining that take-home pay of £60-£64 a week, given the cut in overtime, poses domestic problems. Wives are lobbying shop stewards in favour of a pay increase to meet mounting household bills.

At Cowley, Oxford, an area where the moderates have traditionally held sway, 13,000 workers voted overwhelmingly for strike action.

Cowley learned only last week that under the 1981 BL corporate plan submitted to the Government it had an important role to play as the site for the planned new middle range car, the LC-10.

But stewards believe such considerations of job security are secondary to the general unrest about the erosion of living standards while inflation mounts.

BL union leaders might suddenly be aware of the pay frustrations but they are equally conscious of their weak bargaining position. The company is faced with weak demand, extensive short-time working and the need to persuade an unsympathetic Conservative Government to provide funds exceeding the original £1bn State contribution.

There will undoubtedly be a move today to give the company five days' notice of strike action. But the moderates will point out that Sir Michael holds all the aces: there are divisions not only between the plants, with those on short time not prepared to strike, but also between the unions, with the engineering workers expected eventually to break ranks.

Many union leaders believe the BL negotiations "cry out for compromise" and that an 8.5 per cent offer might be enough to buy off militant action. But Sir Michael has already made clear that "not a penny more" can be offered.

Given such tough opposition, the stewards may back off from direct confrontation.

Union leaders in Coventry today know they face a test of nerve. Sir Michael and the Government will watch with interest.

Longer holidays for a third

A THIRD of Britain's workers received longer holiday entitlements in the last pay round, and half of them have had a reduction in hours over the last two years.

This emerges from the latest edition of "Bargaining Report," a survey by the independent Labour Research Department of the 100 largest settlements in the last round.

City 'favours general purpose annual reports'

FINANCIAL TIMES REPORTER

THERE IS considerable support in the City for the idea of the general purpose company annual report, and very little sympathy for the suggestion that companies should produce separate documents to meet the needs of experts, private shareholders and employees.

This is shown by a survey carried out earlier this year by Business Opinions for Charles Barker, the City public relations group.

The survey shows that, although many are not read very carefully when first received, annual reports are by far the most popular source of information about companies. Eighty-six per cent of respondents nominated the annual report among the first three sources they would consult.

Around a quarter of people in insurance and fund management first turn to a stockbroker's report on the company.

The survey sample totals 342 "senior professionals," including insurance brokers, stockbrokers, bankers, people in unit and investment trusts, company executives, and accountants. It achieved a 75 per cent response rate.

Almost two-thirds of the respondents favoured the view that company accounts should be presented on the historic cost basis, with additional current cost figures showing the impact of inflation.

However, 50 per cent of people in unit and investment trusts felt that the main accounts should be on a CCA basis, with supplementary historic figures.

The survey found support for the idea that preliminary announcements should contain more balance-sheet detail. There was strong support for the inclusion of more information about post-balance-sheet events and future prospects in annual reports.

People covered by the survey were shown some of the findings of the recent Financial Times World Survey of Annual Reports and asked for their comments. Only a fifth of the survey sample disagreed with the view that U.S. companies produce better annual reports than British companies.

* "*Annual Reports and Accounts. A survey of City opinion.*" Charles Barker, London; £60.

Interest up ½% on tax certificates

By Our Economics Correspondent

THE RATE of interest payable on the certificates of tax deposit scheme operated by the Inland Revenue is to be raised from 14½ to 15 per cent today in response to the rise in money market interest rates.

The certificates are available to taxpayers, both individuals and companies, to make advance provision for the payment of a wide range of taxes (other than PAYE) and for liabilities such as Petroleum Royalty.

The change in interest rates is for deposits under the series five prospectus.

The new rate for tax and other liabilities will be 15 per cent and the rate of interest on deposits withdrawn for cash has also been increased by ½ a point to 11½ per cent.

An interest supplement, only payable in respect of a deposit applied in payment of a tax or other liability, of 2 per cent (instead of 2½ per cent) will be paid in respect of the first three months (previously two months) of a deposit.

Bow Group attacks PAYE computerisation

BY JASON CRISP

THE MAIN problems in computerising the Inland Revenue's Pay-As-You-Earn system lie in training and keeping competent staff to establish, run and maintain the system and the inability of British Telecom to provide new communications links in a reasonable time, the Conservative Party Bow Group claims in a report published today.

By comparison, the competence of the various computer suppliers is almost irrelevant, says the Bow Group.

This week a Cabinet committee is expected to decide whether the contract to computerise PAYE will be from a single tender by British-owned ICL or if U.S.-owned manufacturers will be allowed to compete. It is expected that ICL will win.

Government procurement policy, which expires at the end of the year because of EEC and GATT rules, is for a single tender for ICL. American companies like IBM, Burroughs and Honeywell have lobbied vigorously to be allowed to compete.

The Bow Group describes the Inland Revenue's original plan based on 12 regional centres and 20,000 terminals all interconnected and "on-line" as "an unnecessarily complex and grandiose proposal" which would be risky and costly and take far too long to implement.

The Cabinet committee which considered the Inland Revenue's plans in August also feared it was too complicated and sent it back for reappraisal. The Inland Revenue is believed to have wanted IBM while the Department of Industry was very anxious it should be awarded to ICL.

A report calling for a step by step, simple approach, has been prepared jointly by Department of Industry, Inland Revenue, and the Government's computer agency, and been sent to Ministers.

The Bow Group report, written by John Butcher, MP, and Mr. Philip Virgo, wants the Revenue to introduce an initial system based on small business computers with a trial starting in two offices almost immediately before being introduced around the country.

**The Big Steal (Computerisation of PAYE assessment)*, *Bow Publications, 240 High Holborn WC1.* £2.50.

Port strike support 'overwhelming'

BY PHILIP BASSETT, LABOUR STAFF

BRITISH SHIPPING is expected to be severely disrupted today by a 24-hour National Union of Seamen's strike over the Cunard flags of convenience dispute.

The union said yesterday that messages received at its head office indicated overwhelming support for the action. The strike was due to begin at midnight last night with the aim of preventing all sailings of British ships from UK ports.

The action is expected to halt British-owned cross-Channel ferry traffic, as well as cargo ships, though hovercraft services seem unlikely to be affected. Hoverlloyd said its Ramsgate-Calais service would be operating as normal and had vacancies.

The union has organised a programme of 14 rallies and meetings of members at major ports throughout the country. The largest are likely to be at Cardiff, Dover, Hull, Liverpool and Southampton. Mr. Jim Slater, NUS general secretary, travelled to Liverpool yesterday to address a meeting there today.

The union's executive will meet tomorrow to receive a reply to its pay claim from the General Council of British Shipping.

It is likely the executive will also discuss the effects of today's action. A union spokesman said yesterday that the possibility of extending the action and asking for further support from foreign seamen could not be ruled out.

The NUS also became involved in a dispute with Cunard yesterday over the validity of a telex message from crewmen of the QE2, the company's flagship.

The unsigned message was sent to Mr. Slater and Lord Matthews, chairman of Cunard. The ship is threatened with industrial action over the flags of convenience dispute when it docks at Southampton on Friday. But the telex message said staff did not wish to take part in this action.

The NUS doubted whether the message was representative of feeling aboard the ship, and said reports from the ship through official NUS channels indicated support for the proposed action. A spokesman for Cunard, though, said the telex had been received in good faith.

The message asked the union for advice on the legality of a secret ballot on taking action. It said: "It is our wish, we hope with your aproval, to hold a properly conducted secret ballot to assess the true feelings of the crew. We have requested your representative on board to arrange this and have been repeatedly refused."

The message deplored the decision of the NUS executive to reject proposals for solving the dispute and asked the union to continue negotiations. The crew of the QE2 have been told they may lose their jobs if they refuse to sail on an eight-day trip to the Canary Islands on Saturday.

The telex said if a decision was left until the ship docked, the crew considered it "could well be too late for saving future employment and the jobs on board the QE2 and all connected with it."

The other two cruise ships involved in the dispute, which centres on Cunard's wish to cut costs by placing the ships under flags of convenience, are the Countess, stranded at Barbados by an NUS sit-in, and the Princess. Four of Cunard's cargo fleet are also stranded. Lord Matthews has threatened to sell the cruise ships because of the NUS action.

There was no contact between the two sides over the weekend, but an approach to both parties is likely early this week from the Advisory, Conciliation and Arbitration Service.

Union banking plan is helped by Co-op

NICK GARNETT examines the financial and political implications of the ambition of the trade union movement to establish a banking institution under its control.

UNION OFFICIALS, using the expertise of the Co-operative Bank, are well on the way towards drawing up a feasibility plan for setting up a banking institution controlled by the unions.

If such a scheme—which has financial and political motives—eventually takes root it will mark a considerable departure in the unions' view of financial institutions and their own corporate image.

It would also represent a significant rethink of current union attitudes to finance which, in comparison to those held by unions in some European countries, might be regarded as backward.

A number of frameworks are being examined by the Co-operative Bank. A report to be issued within the next few months on how much money will have to be injected by a union consortium to get the project off the ground and the type of partnership the unions should be seeking.

From this, the more optimistic union officials see the creation of a new banking institution within a year or so, though with a fairly lengthy gestation period for it to gain credibility.

The impetus has come from the General and Municipal Workers' Union and in particular Mr. David Basnett, its general secretary. Considerable interest has been awakened in other unions, particularly the Association of Scientific, Technical and Managerial Staffs.

The unions have no expertise in banking and need an existing structure which can be modified. They have not restricted their discussions to the Co-op, however. There have already been tentative talks with a number of merchant banks and an Israeli bank. Local management at Barclays, which is one of the GMWU's bankers, has shown considerable interest in a possible partnership.

Officials of the GMWU have also had discussions with West German trade union banks—in particular the Bank fur Gemeinwirtschaft — which are well developed and have close financial links with the equivalent of the Co-operative movement within the Federal Republic.

The British unions have been seeking information on the way their West German colleagues have developed a strong concept of retail banking and created a union movement with much greater financial strength than that in Britain.

Not surprisingly, though, the Co-operative Bank has been taking the lead in the project. "The unions are our friends and customers and we are seeking a framework with them," said Mr. Malcolm Hurlston of the bank.

The unions have been tentatively discussing the creation of an institution with both a merchant banking arm and a type of clearing bank facility, though there are considerable legal difficulties.

The broadening of the Co-operative Bank's interests, including its Commercial Bank merchant banking facility, has been a further attraction to the unions.

Given the antipathy of the Trades Union Congress towards the way financial institutions are organised, bankers might question why it has taken so long for the unions to attempt to set up their own institution.

Mr. Basnett stresses that functional uses are the prime motive for the initative. The unions together have tens of millions in current and deposit accounts, pension and other funds. The GMWU's income is currently about £20m a year. Initial union estimates suggest that alone several million pounds would have to be set aside by a consortium to launch even a basic banking facility.

The GMWU's view is that the money that accrues from handling union funds should come to the unions. It also believes that a union banking institution might have a chance of offering better terms on loans and other services to union customers than is presently offered by the commercial system. But the question arises whether the unions have enough total funds to enter this area.

One of the prime functions of a trade union bank would be the management of pension and other funds and investment. There is also some possibility of a retail bank function attracting individual union members. The Co-op Bank would obviously not wish to see its business base eroded, however.

There are clearly some long-term economic and more tenuous political overtones in the unions' move. Some unions suggest, perhaps optimistically, that it could create a yardstick for pension fund management against which the performance of other banks could be measured.

A deeper commitment would be a stake in the handling of the country's economic resources and an influence, though minor to begin with, in the financial market.

This reflects a more corporate attitude and has the individual stamp of Mr. Basnett.

Farmers told they can afford parity

By Our Labour Staff

THE INSISTENCE of farmers that they could not afford to meet the wage claim submitted by the farmworkers' union for parity with average industrial earnings was attacked by the union at the weekend in preparation for the resumption of negotiations today.

Leaders of the National Union of Agricultural and Allied Workers have organised a rally in London today to tie in with the renewed pay talks with the employers' representatives on the Agricultural Wages Board.

The union, which represents about one-third of the country's 250,000 full-time agricultural workers, has tabled a claim which seeks to raise the basic pay of farmworkers from £58 for a 40-hour week to £110 for a 35-hour week.

The employers have warned that jobs may be lost if any settlement is more than they can afford.

Mr. Chris Kaufman, a national official of the union, said at the weekend that the farmers' reaction was designed to be menacing. He denied their claims that last year's pay deal of 19½ to 24½ per cent, one of the highest in the last pay round, had led to increased redundancies.

Fewer workers had left the industry than in the year before or in the average of the previous five, 10 and 20 years. He said farmers' claims that they could not afford to pay the increase were "utterly false."

Farmworkers negotiators will enter the talks today armed with a report from the independent Low Pay Unit which urges the wages board to approve a 30 per cent increase from January next year as the first step in closing the earnings gap between farmworkers and the rest of the community.

A similar increase should follow next year's negotiations, in order to achieve parity by January, 1983. The report argues that in 1979, farmworkers would have required an increase in earnings of £33 or almost 50 per cent to achieve parity with non-agricultural employees. The unit says, though, that because non-family labour constitutes only 14 per cent of the total cost of agricultural inputs, a 50 per cent rise in earnings would only mean a 7 per cent rise in total costs. This in turn would mean an increase of less than 1 per cent in food prices in shops.

The average farmworker pays proportionately more in tax and receives less in benefits from the state than his employer, it adds.

Wilson calls for aid to newspapers

FORMER Prime Minister Sir Harold Wilson on Saturday called for State assistance for the newspaper industry—the day after the London Evening News closed.

In a letter to The Times he said the idea of strictly-controlled Government aid, rejected by publishers five years ago, should be looked at again.

Under the Wilson scheme, aid would have been conditional on both sides of the industry "putting their house in order." Sir Harold said the plan might be greeted more favourably now that one newspaper had closed and another two were in jeopardy.

Jobs freeze

NORTHAMPTONSHIRE County Council has put a freeze on recruitment of all white-collar and manual workers in a bid to cut back spending by a further £500,000. So far this year cutbacks of more than £10m have been made.

Parliament next week

COMMONS

Monday: Debates on EEC documents on milk and pig production; National Dock Labour Board (Increase of Loans Limit) Order; Consumer Credit (Advertisements) and (Quotations) (Amendment) Regulations.

Tuesday: EEC proposals on Product Liability, and on Community driving licence.

Wednesday: Lords Amendments to the Civil Aviation Bill; Proceedings on Tenants' Rights (Scotland) Bill; Lords Message on Criminal Justice (Scotland) Bill.

Thursday: Debate on offshore safety; Remaining stages of Overseas Development and Co-operation Bill; Regulated Tenancies (Procedure) Regulations.

Friday: Motions on EEC documents on agricultural produce, sheep meat and consumer protection.

LORDS

Monday: Broadcasting Bill Report.

Tuesday: Education (Assisted Places) Regulations. Highways (Road Humps) Bill Third Reading. Short debate on NEDC industry memorandum.

Wednesday: Local Government, Planning and Land Bill, Third Reading.

Thursday: Broadcasting Bill Third Reading. Regulated Tenancies (Procedure) Regulations 1980.

Civil Servants want pay reports released

BY PHILIP BASSETT, LABOUR STAFF

CIVIL SERVICE unions are likely this week to seek an injunction against the director of the service's Pay Research Unit to secure the release of the unit's comparability reports which are used to determine pay increases for 550,000 white-collar civil servants.

The Government last week suspended the Service's pay agreement, with the aim of preventing the delivery to the unions of the reports since they will show due increases substantially higher than the amount to be provided for pay in the forthcoming cash limits for the Service.

Mr. Vernon Morgan, PRU director, then wrote to the unions to inform them the reports would not be delivered. The unions replied with a request from their solicitors that the reports be delivered, but union officials now expect that request to be refused.

In consequence, the unions are expected to seek a court injunction to obtain the reports which would provide a considerable propaganda weapon for the unions to support any industrial action taken in the new year.

The Government could be considerably embarrassed if the unions manage through court action to negate the main reason for the suspension of the pay agreement.

The unions consider that Mr. Morgan made an error in taking the decision to withhold the reports following a letter to him from Lord Soames, Lord President of the Council, and Minister in day-to-day charge of the Civil Service, saying that it would be "appropriate" that the reports should not be delivered. The unions feel that Mr. Morgan should have first called a meeting of the PRU Board which was established to ensure the correct running of the unit's work.

The unions have warned of widespread industrial action over pay this winter, and their industrial action co-ordinating committee meets today to draw up plans for a series of protest meetings this month as a first step.

The meetings are likely to be in about 16 regional centres. For the first time, the action is likely to be co-ordinated to the extent that the offices of the Council of Civil Service Unions, the umbrella body of the nine civil service unions, will be used as a communications headquarters for the action.

Some union officials believe that the suspension of the pay agreement for this year is only a prelude for its full suspension next year.

Widespread reduction in work hours

By Our Labour Staff

A QUARTER of Britain's workers have secured a reduction in working hours over the last two years, according to a study of the 100 largest settlements in the last pay round, published today by the Labour Research Department.

Earlier this year the department's Bargaining Report said roughly 4m workers won shorter working week agreements over the period.

But following agreements involving British Steel, the general printing industry, London Transport, British Rail, retail Co-ops, wholesale grocery, construction, ICI and Pilkington, the latest report says that total is now about 5.6m, or a quarter of the national workforce. The report takes no account of local and smaller national shorter hours settlements.

The LRD says: "A feature of the 1980-81 pay round is certain to be very heavy pressure from unions on employers who have yet to agree to shorter hours."

The survey covers roughly 11½m workers — about 7.9m manual and 3.6m non-manual, about 6.1m public and 5.4m private sector employees. A third of Britain's workers received an improved holiday entitlement in the last pay round, it adds.

BUSINESSMAN'S DIARY

UK TRADE FAIRS AND EXHIBITIONS

Date	Title	Venue
Nov. 4-6	Computer Peripheral and Small Computer Systems Exhibition and Conference (01-837 3636)	Olympia
Nov. 4-9	Kensington Antiques Fair (04868 22562)	Kensington New Town Hall
Nov. 6-16	Caravan Camping Holiday Show (01-353 4000)	Earls Court
Nov. 8-16	Daily Mail International Ski Show (Medway 47111)	Earls Court
Nov. 9-11	International Garden and Leisure Exhibition—GLEE (01-546 6757)	National Exhibition Centre, Birmingham
Nov. 11-13	Fast Food Fair and Conference (01-837 3636)	Metropole Hall, Brighton
Nov. 11-14	London Business Equipment Exhibition (01-405 6233)	Cunard Intnl. Hotel, W6
Nov. 11-14	The Factory Management and Maintenance Engineering Show and Conference (PEMEC) (01-747 3131)	National Exhibition Centre, Birmingham
Nov. 11-14	The Design Engineering Show and Conference (01-747 3131)	National Exhibition Centre, Birmingham
Nov. 12-15	International Festival of Wine (0703 32348)	Post House Hotel, Southampton
Nov. 16-19	Sunday Times Business to Business Exhibition (01-407 4046)	Belle Vue, Manchester
Nov. 24-29	International Food, Wine and Kitchen Exhibition (06284 2442)	Magnum Exhibition Centre, Leicester
Nov. 25-28	The Which Computer? Show (01-747 3131)	National Exhibition Centre, Birmingham
Nov. 26-26	British Marine Trade Show (0932 5451)	Metropole Hall, Brighton

OVERSEAS TRADE FAIRS AND EXHIBITIONS

Nov. 3-8	International Engineering Exhibition—ENKOR (01-681 7688)	Seoul
Nov. 4-7	International Trade Fair for Clothing Textiles—INTERSTOFF (01-734 0543)	Frankfurt
Nov. 8-16	International Boat Show (01-540 1101)	Copenhagen
Nov. 9-14	Middle East Building Materials and Construction Industry Exhibition (01-486 1951)	Bahrain
Nov. 14-23	Mining Industry Technical Fair—TECNOMIN (01-681 7688)	Lima
Nov. 17-22	International Packaging Exhibition (01-439 3964)	Paris
Nov. 19-22	Medical and Technical Exhibition and Congress—MEDICA (01-409 0956)	Dusseldorf
Nov. 19-22	International Hospital Engineering, Exhibition and Conference—HOSPEX (01-486 1951)	Tokyo
Nov. 19-29	Pacific International Trade Fair (01-681 7688)	Lima
Nov. 24-29	Oil and Gas Industry Equipment and Services Exhibition (01-935 8200)	Mexico City
Nov. 29-Dec. 7	Antiques Exhibition—ANTIQUA (01-540 1101)	Berlin
Dec. 8-12	International Machine Tool and Woodworking Show—METALASIA (01-486 1951)	Singapore

BUSINESS AND MANAGEMENT CONFERENCES

Nov. 3-4	FT Conference: Investment in Malaysia (01-621 1355)	Kuala Lumpur
Nov. 4	Gwilym Jenkins: Forecasting For The City (0524 61831)	Clifton Ford Hotel, W1
Nov. 5	Abacus: Health and Safety in the Printing Industry—Reducing the Risks: Avoiding Confrontation (0604 881300)	Mount Royal Hotel, W1
Nov. 5-6	MTC: The Skills of Interviewing (0533 27062)	Leicester
Nov. 6-7	Graham and Trotman: Argentina and Chile—New Business Opportunities (01-493 6351)	Hilton Hotel, W1
Nov. 11	Oyez-IBC: Food Law for the 1980s (01-242 2481)	Princess Anne Theatre, BAFTA, W1
Nov. 12	Royal Statistical Society: The Wilson Committee review of the functioning of financial institutions—some statistical aspects (01-723 5882)	London, WC1
Nov. 13	London Chamber of Commerce: UK/Soviet trade conference (01-248 4444)	69 Cannon Street, EC4
Nov. 13-14	Keplinger and Associates: Symposium on Oil and Gas Investing and Financing (01-584 4351)	London
Nov. 13	IPM: Industrial Relation Law (01-387 2844)	London, WC1
Nov. 14	Gower: Choosing and Using an Insurance Market (01-240 5931)	Waldorf Hotel, WC2
Nov. 17-18	AMR International: Using Advanced Techniques in International Mechanics (01-262 2732)	London Press Centre, EC4
Nov. 17	Institute of Directors: The Common Market (01-839 1233)	Pall Mall, SW1
Nov. 18	Heliotechnic Educational: Opportunities for Marketing and Investment in Solar Energy (01-240 2430)	Pall Mall, SW1
Nov. 18-19	FT Conference: Retail Banking (01-621 1355)	Grosvenor House, W1
Nov. 19	Institute of Directors: Annual Lecture (01-839 1233)	Cardiff
Nov. 20	Oyez/IBC: Oil and Gas—Accounting Taxation and Financial (01-242 2481)	Royal Lancaster Hotel, W2
Nov. 20-21	FT Conference: Employment in the '80s (01-621 1355)	Grosvenor House, W1
Nov. 24	BCPA: Contracts of Employment (01-405 1023)	Royal Horseguards Hotel, SW1
Nov. 26	IPS: Trading with China (0990 23711)	Tara Hotel, London
Nov. 27	Gower Conferences: How to develop and launch new industrial products (01-240 5931)	Café Royal, W1
Nov. 27-28	AMD: The Leadership Course (07535 56047)	Gloucester Hotel, SW7
Dec. 4	Business Perspectives: The Brandt Report—Implications of International Business and Finance (01-584 3132)	Royal Lancaster Hotel, W2

Anyone wishing to attend any of the above events is advised to telephone the organisers to ensure that there has been no change in the details published.

Technical Page

EDITED BY ARTHUR BENNETT AND ALAN CANE

Engineers at the Skelmersdale, Lancs, plant of Dewrance, carrying out steam tests on a pilot-operated safety-relief valve for a nuclear power station. The company says it has major orders for high pressure valves and boiler mountings for nuclear plants under construction in France, America, South Korea and Spain. New orders, worth in total more than £2m have been won for valves for power station work in India and for fertiliser plants in Rash Traya.

Searching for the sweet sound of success

BY ELAINE WILLIAMS

"WE CAN turn your living room into the Albert Hall," says Mr. John Hayes, director of a small hi-fi manufacturer, IMF Electronics.

After 10 years' research and 127 patents, the company believes it has developed a hi-fi system called ambisonic surround sound which will make ordinary stereo hi-fi sound as primitive as Edison's tin foil phonograph seems to us today.

Now the company, which earns its living manufacturing loudspeakers and which exports over 70 per cent of its output, is looking for a bigger partner to share in its discovery.

Mr. Hayes explained that with conventional stereo sound has little depth because it comes from only two speakers in front of the listener.

With the IMF system, the listener is surrounded by at least four loudspeakers. Mr. Hayes said: "We can produce the illusion that a room is bigger than it really is: it would sound like the Albert Hall if the piece of music was recorded there."

More than £100,000 has been spent by the National Research Development Corporation to help IMF develop surround sound. Much of the basic research was carried out by Dr. Peter Fellgett and Geoffrey Barton at Reading University and Dr. Michael Gerzon at Oxford University.

A significant amount of the NRDC money has been spent on protecting the design with patents throughout the world. Mr. Peter Tanner who looks after the project at NRDC said: "If we can get the system adopted world-wide it has the potential to be a vast business like stereo."

In Britain, the BBC carried out successful trial broadcasts using the surround system (which it calls UHJ) in 1977. But there will be no permanent surround sound broadcasts until it can secure union agreements.

Surround sound records are made in exactly the same way as conventional records and can be played on normal stereo equipment. During recording only one specially designed microphone is required. This has been developed by Calrec Audio in Yorkshire, which makes conventional microphones for the BBC and has worked closely with IMF on surround sound.

This microphone picks up the sound in the recording studio and turns it into the four separate signals which are needed for the surround sound effect. These are then digitally encoded and compressed by a complex mathematical formula into only two signals which are recorded and used to make the stereo disc.

In order to play back the sound, a decoder picks up the coded stereo signals from the stylus and turns this back into the four separate signals which are then fed through amplifiers to the four loudspeakers. Extra speakers can be added if required.

The effect, even to my tone deaf ears, was impressive. Special effects, such as turning orchestras upside down, can be created during the recording process.

So far, only two small recording companies, Nimbus and Unicorn, are using the system to produce high quality stereo discs. Many are classical selections of Chopin, Debussy and Beethoven. However, IMF is also releasing some jazz records, the first of which is called "Beginnings" by the Reformation Dixieland Band to appeal to a wider audience.

With the surround sound decoder and two extra loudspeakers conventional stereo records can be played to give an improved sound effect which IMF calls "super stereo."

The NRDC hopes that the Federal Communications Committee, which regulates broadcasting in the U.S., and the European Broadcasting Union will both accept surround sound as an international standard, following successful demonstrations this year in Chicago, Dusseldorf, Amsterdam and Brussels. But no decision has yet been made.

Most of the major recording and hi-fi manufacturers are known to have looked at the possibilities of surround sound but have not indicated that they will adopt the system. This is due to several factors including the downturn in consumer demand caused by the recession and new developments such as the video disc—which may be more attractive in the long term.

So, for the moment, IMF Electronics and the NRDC are left to promote the new system on their own. But as a small manufacturer, IMF does not have the resources to manufacture on a large-enough scale to make the equipment cheap. It hopes that a company such as Philips will take up a licence to manufacture.

Philips says that for the foreseeable future consumer demand will be satisfied by conventional stereo and although it is keeping "its options open" on new systems it has no plans to introduce surround sound.

The record industry still remembers the unsuccessful attempts during the early 1970s to introduce quadraphonics—which also compressed four sound signals on to a stereo record. But since the signals were coded in a very simple way, the reproduction did not sound as realistic as surround sound, and there was very little consumer interest.

Radio stations could not broadcast quadraphonics successfully either, as it required four separate radio bands to transmit each of the channels. In the crowded airwaves used by broadcasters only two channels—those used for stereo—could be employed.

Unlike the surround sound system, quadraphonics broadcasts were not compatible with existing mono and stereo broadcasts.

Today a complete surround sound system costs £650: the decoder on its own accounts for £250. Mass production could bring the decoder cost down to only £30.

Mr. Tanner at the NRDC admits that it will be some time before surround sound catches on. He said that it had reached the stage where some large company needs to "take it up in a bigger way."

Stereo took more than 15 years to become popular, but if there is any money to be made from surround sound the NRDC believes that the 127 patents ensure that Britain gets it.

● SECURITY

Door will resist blast

OFFERING PROTECTION in high security areas or blast resistant buildings is a strong door system developed by Mowlem (Civil Engineering) of Bracknell, Berks, which says eight of these have been installed in a blast resistant control room at Esso's Fawley Refinery near Southampton.

System is designed to meet Health and Safety regulations laid down by the petrochemical industry and is intended for use in areas where special safety considerations are needed to protect people, plant and equipment, and to maintain the integrity of a building in adverse conditions.

Supplied either with or without automatic equipment the doors come in standard sizes, or specially to order. Automatic equipment is usually pneumatically operated and can be opened manually in the event of power loss.

The doors are said to withstand rebound loadings and remain secure and operable under multiple blast conditions.

● HEATING

Drying-out is speeded

A BUILDING'S finishing stages can be planned and started at any time of the year because of the benefits of a new building dryer, says Westair Dynamics, Thames Works, Central Avenue, East Molesey, Surrey (01-941 4184).

Experience of demanding operating conditions in overseas markets, particularly in Scandinavia, has led to the development of the machine's heat pump circuitry to operate particularly efficiently in its 6 to 35 degrees C range. In fact, says the company, in the extremely difficult drying conditions of 10 degrees C and 50 per cent humidity, the unit's water extraction rate has been improved by over 200 per cent.

Westair's latest model is simple but robustly designed with a height of 1140 mm, only 540 mm wide and weighing just 77 kg. This means it presents no problems in being manhandled in and out of vehicles, through narrow openings or up and down stairs.

● PROCESSING

Keeps a watch on liquid levels in tanks

LEVELS OF toxic, corrosive or crust-forming solutions in tanks, pressure vessels, etc., has always posed problems in many manufacturing industries and, due to the very nature of these substances, many measuring systems have had limited applications due to poor accuracy, risk of corrosion — or even explosion—says Laboratory Impex, Lion Road, Twickenham, Middlesex (01-892 9157).

Promising to satisfactorily overcome these hazards is a new non-contacting and explosion-proof measuring system which has no moving parts and is unaffected by all chemicals and most physical properties of liquids.

This is made by Berthold of West Germany, is known as the LB 300-1 Liquid Level Monitor, and provides a constant readout of vessel contents with an accuracy of within 3 per cent.

The system consists of a very low intensity radioactive source unit and a high sensitivity scintillation counter detector. Both are positioned outside of the vessel but diametrically opposed to each other.

A narrow beam of radiation is emitted from the source and passes through the contents of the vessel. Intensity of the energy reaching the detector is related to its filling level, and a readout is produced via an electronic amplifier. This can be situated a considerable distance from the detector without loss of accuracy. Careful shielding of the source prevents any contamination danger, and there is no risk of radiation building up in the fabric of the vessel or its contents, it is stated.

It is added that the new-to-the-UK system can be used with virtually any chemical substance and is unaffected by most physical properties including temperature, pressure, viscosity, conductivity and dielectric constant.

Applications for this development in process control are as wide ranging as the chemical industry itself, says the company, adding that some proven areas are chlorine, DMT, caprolactum storage tanks, high and low pressure vessels, autoclaves and glass melters.

● HANDLING

Fork lift trucks lifted

EASIER SERVICING of fork-lift trucks is promised with the introduction of a two-speed hydraulic fork lift truck jack whose low profile design allows it to slide under trucks and which has as little as 2½ ins ground clearance, announces Peel Equipment, The Wye Estate, High Wycombe, Bucks (0494 451111).

Once it is in position the FLJ-400 is said to make fast work of lifting the truck to a height of 16 ins. The higher speed is used until the lift-pad meets the load, and then the jack automatically switches to low speed for easier lifting.

A "walking beam" principle is used for optimum safety and, although it weighs less than 60 lbs and has a lifting capacity of 8,000 lbs, the jack is said to handle all types of trucks.

The walking beam design also facilitates the unit's portability from job to job—it can be wheeled on its heavy duty castors or folded flat and carried.

Warning is loud and clear

A DISTINCTIVE and penetrating warning signal is said to be emitted by a new type of audible warning device called the Howler, just launched by Chubb Alarms, 42 Hersham Road, Walton-on-Thames, Surrey (09322 43851).

Housed in a weatherproof stainless steel box the unit is operated through timing and control circuits connected to a nickel cadmium battery supply and charger unit. The alarm can be used either on its own or in conjunction with remote signalling equipment to police central monitoring stations.

Mobile heating source

ONLY ONE gallon of paraffin is needed to provide instant heat for three hours with a new high output chassis mounted mobile oil heater claims Wysepower, Drove Road, Everton, near Gamlingay, Sandy, Beds (0767 50011).

Called the 60D model space heater, it provides 60,000 BTU (the equivalent of 17½ kW) and is suggested for applications where a mobile source of heating is required—garages, aircraft hangars, drying out buildings in bad weather, on construction sites, livestock buildings and greenhouses, etc.

A flame failure safety cut-out switch is standard on the heater which is available for both 110 and 240 volt supply.

Separates cutting oils from the swarf

A NEW range of swarf and oil separating plant designed for the recovery of cutting oils is entirely automatic, will recover an average of 17 gallons of oil for every 1,000 lb of steel swarf processed and promises a saving of about £35 per 1,000 lb swarf processed.

Based on a novel range of automatic centrifuges capable of processing between 200 lb and 9,000 lb of swarf an hour the system can handle any type of metal swarf says FSP (Filtration & Separation Products), Gillmans Industrial Estate, Billingshurst, West Sussex (040-381 3741).

Energy imparted to the swarf by the centrifuge is utilised to convey the dried swarf for considerable distances which means that costly conveyor systems are no longer required.

A novel parts separator is incorporated in the machines so that machined parts that find their way into the swarf are recovered for production.

System is scavenged by high velocity air which enables a single system to be used on different swarfs—for example, aluminium and brass, in quick succession without contamination between the two.

A typical system capable of handling 2,000 lb of steel swarf an hour would cost around £15,000. This price would include a parts separator and a 100 feet tube system to take the swarf out of a building for decanting into, say, a skip.

Oil recovery a year on a one-shift basis for only five days a week would be in the order of £140,000, says the company, but in addition to these benefits would be the elimination of oil spillage in yards and drains.

Building and Civil Engineering

£15m awards to R. M. Douglas

A HOSPITAL development scheme at Morriston, near Swansea tops a list of several contracts totalling £15m awarded to R. M. Douglas Construction.

Worth over £10m, the hospital has been designed by the Welsh Health Technical Services Organisation. Consultants are Ove Arup and Partners and quantity surveyors I. E. Symonds and Partners.

In South Wales, at Carmarthen, the company is to build a processing plant for Dalgetty Spillers Agricultural (£630,000) while further north the company is to undertake factory reconstruction at the Whitegate complex, Wrexham for Morgan Grenfell and Wrexham Maelor Borough Council. Value of the latter contract is £2.2m.

Also worth £2.2m is a contract for advance factories at Gateshead for English Industrial Estates Corporation.

Housing in London

BOVIS CONSTRUCTION announces it has taken over from another contractor the completion of new homes for about 1,067 people under a £5½m contract at Broadway Market, Pownall Road, Hackney for the Greater London Council.

The dwellings are being built in 28 blocks ranging from single to four-storey in height. Blocks comprise 115 two-person homes, 96 four-person homes, 69 five-person homes and 18 six-person homes.

Construction is of traditional brickwork cladding and slate roofs on concrete foundations and all homes will be centrally heated.

External works include estate roads and footpaths, services and drainage. Completion is due in December 1982.

£4m service contract

THE MECHANICAL and electrical building services contract on MEPC's development at Long Acre in Covent Garden has been awarded to Andrews-Weatherfoil.

This is worth over £4m and covers the working design and installation of all air conditioning, ventilation, heating, hot and cold water, plumbing, electrical and fire protection services, etc. Work has already started and the building is due for completion in June 1982.

Architect is R. Seifert, structural consultant Ove Arrup and Partners, service consultant Jaros, Baum and Bolles of New York, and main contractor Sir Robert McAlpine and Sons.

Converting a flour mill

CONTRACT FOR the conversion of the existing 19th century Thames Tunnel Mills at Rotherhithe, SE16, valued at £2.1m has been won by Eve Construction.

This five-storey flour mill — badly damaged by fire some years ago—lies about one mile from Tower Bridge in a conservation area and is to be converted into single person accommodation for 119 people.. There will be 71 flats together with communal common room, laundry room, roof gardens, conservatory and riverside balcony.

Existing roofs, floors, internal walls, beams and columns will be demolished to ground level retaining only the external walls, main cross and core walls, water tower and brick chimney

Structural steel orders

AN ORDER for the fabrication of structural steel totalling 750 tonnes for a salt water intake structure and two pipe racks at Raz Ranuf, Libya, has been obtained by S. W. Farmer and Son.

The company is also to fabricate 1,000 tonnes of conveyor steelwork and towers for an alumina calcination and storage plant at Aughish Island, Eire.

Farmer Plant Engineering is to carry out a contract for the supply and erection of 200 tonnes of ducting for a waste heat recovery system at Grangemouth refinery, while S. W. Farmer (Leeds) will be fabricating and erecting 300 tonnes of structural steel for a warehouse complex for English Industrial Estates Corporation at Team Valley, Grangemouth.

Total value of these orders is £1.6m.

Higgs and Hill win £12m worth

TWO MAJOR contracts totalling over £12m have been won by Higgs and Hill.

The larger of the awards is a £7m contract from the Midland Bank Pension Trust for the construction of an eight-storey office block at Griffin House, in the Strand, London. Due for completion in August 1982, the building will incorporate shops at ground floor level and lower-ground car parking. Jones Lang and Wootton Project Services have been appointed as project managers.

The other contract, worth £5¼m is from the Prudential Assurance Company for the reconstruction and refurbishment of the CBI headquarters building at 21 Tothill Street, London SW1.

This two-year contract is for a nine-storey air-conditioned office building, and includes construction of new plant rooms and mansard roofs, new lifts, stairs and services, and reconstruction of the front elevation.

£6.7m dam contract

COSTAIN International has been awarded a £6.7m contract for the construction of the Victoria Dam power station and associated works in Sri Lanka.

The project, for the Mahaweli Authority of Sri Lanka, is part of the Mahaweli irrigation scheme and will involve the excavation, by drilling and blasting, of some 250,000 cubic metres of rock and the placing of about 40,000 cubic metres of reinforced concrete.

Consulting engineer for the contract is Sir Alexander Gibb and Partners. Work is due to start in early 1981.

Preparing for the tourist

ROYAL COMMISSION for Jubail and Yanbu, Kingdom of Saudi Arabia, has appointed consulting engineer Halste and Partners to improve and develop tourist facilities in the municipality of Hofuf.

Halste will design and supervise in association with Dorr Trading on the £1.5m project which covers the Ain Najim Spring and the Jebal Al-Qarah Caves.

Work at the Spring will provide a new bath house, lodgings, a prayer shelter, food kiosk and service facility buildings. Three ancient dome structures on this site are to be refurbished.

At the Caves, catering, toilet and other facilities will be provided.

On both sites, there will be incorporated deep bore-holes for potable water supplies and small sewage treatment plants made by another British company, Simon Hartley of Stoke-on-Trent.

Halste engineers responsible for the Hofuf scheme and other design and supervisory work in Saudi Arabia will be based on the firm's new office in Al Khobar.

Mowlem is kept busy

SEVEN contracts in the north east of England, worth together £1.75m have been awarded to John Mowlem and Co.

The largest, worth £420,000, awarded by the English Industrial Estates Corporation, is to design and construct a factory and offices for J. Barbour at Monksway, Simonside, South Shields. Another design and construct contract for the Corporation is at the Tanfield Lea Industrial Estate, Stanley, Co. Durham. Valued at about £300,000 it is for 24 small advance workshops.

Other awards are for the reconstruction of a road embankment and river culvert at Stanley, near Durham (£250,000) and a waste paper processing factory for North East Paper Company at the Thornley Station Industrial Estate, Shotton Colliery (£300,000).

The rest of the contracts include two wells, pumping equipment and water mains at Drax power station (£245,000) and installation of a materials treatment plant for Smiths Dock Company at South Bank, Middlesborough.

Pipes ordered by Iraq

CAST IRON drainage pipes and connections are to be supplied to the Iraqi government by Glynwed Foundries of Tetley, Telford, Salop, under a £6.3m order.

The company has been working short time for several months because of the depressed home market and won the contract against strong competition from producers in India, China and eastern bloc countries.

Mr. Gerry Marvin, sales director of Glynwed Foundries, told the Financial Times, that the pipes and connections will be used on public and private buildings throughout Iraq.

He added, "This new contract follows a £2½m order received last April. These orders were the result of many visits we have made to Iraq over the years and particularly the relationship we have built with the Iraqi authorities during the last 18 months. It certainly didn't drop into our laps; we've had to work at it very hard."

Busy in the City of London

BOOSTING ITS present workload are contracts worth over £5.5m awarded to Ashby & Horner, with three projects being undertaken in the City of London.

Refurbishment work for Williams & Glyn's Bank includes converting 23-28 Charterhouse Square into a new clearing centre at a value of £3.2m.

Watling Street Properties have awarded nearly £¼m for refurbishment at 8-10 Queen Street, EC4, and a third similar project is at 50 Leadenhall Street for Glenifer Finance Corporation.

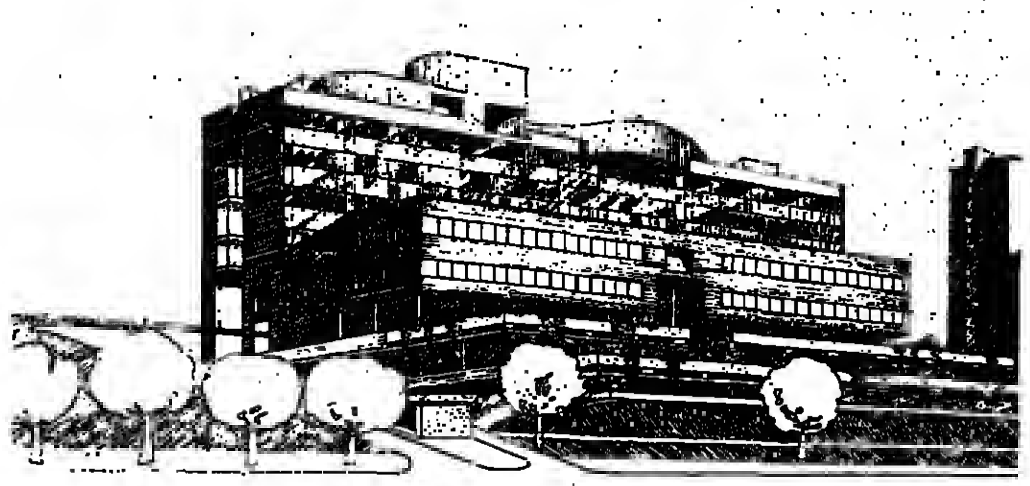
Work outside the City includes a new branch for Halifax Building Society in Kilburn High Road, and a £200,000 branch for an assurance company in Watford, Herts.

Homes in Nottingham

BRIDGE HOUSING Society has placed a contract worth more than £1m with John Laing Construction for homes for 114 people to be built on a site close to the centre of Nottingham.

Development at St. Mary's Gate comprises 39 bedsitters and 21 maisonettes in a four-storey terrace plus four terraced houses all grouped round a central open space.

Contract includes site roads, footpaths, parking areas and landscaping. Construction will be of traditional brick and blockwork cavity wall with timber-framed top floors to houses and maisonettes.



An impression of Snamprogetti's new headquarters to be constructed on a site near the town centre, station and bus depot in Basingstoke, Hants. The development will be on a 13 metre slope which lends itself to a tiered design and ensures that 200 of the 450 car parking spaces will be under cover. Building will be brickfaced with contrasting curtain walling, and the podium and roof of the complex will be enhanced with landscaping and roof gardens. Tenders are being submitted for various stages of the construction which will be in the £7-£10m range.

Henry Boot contracts

THE second phase (36,000 sq ft) of the Huntingdon town centre development scheme has been awarded to Henry Boot by the Arrowcroft Group. This £750,000 contract includes the demolition of some buildings and the refurbishment of a three storey unit.

A further 12 two-storey shop units will complete the mall formed by the first phase, and an extension to the existing shoppers' car park will be provided over the shop units at roof level. This will include a staircase tower and link bridge to the existing car deck of adjoining premises.

Another £750,000 contract (awarded by Matthew Hall Ortech) is in connection with a coal handling facility at Blyth power station in Northumberland.

Scheduled to allow plant operation by late 1981 the contract involves the construction of an unloading hopper for rail-borne coal; tunnels for stocking and reclaiming conveyors; foundations for conveyor trestles, bunker and weighbridge, and reclaim facility.

Henry Boot has also won contracts for window replacements in flats and maisonettes at Toryglen, Glasgow, for Glasgow District Council (£275,000) and for an effluent plant at the Prudhoe, Northumberland works of Kimberley-Clark.

Hotel job awarded to Lesser

FOURTH CONTRACT awarded to Lesser by Anchor Hotels for the design and construction of an extension and refurbishment to the Hunting Lodge Hotel, Larkfield, near Maidstone, Kent, is worth £725,000.

This will add a further 44 bedrooms each with private bathroom, and new work includes refurbishment of nine existing bedrooms plus provision of new bathrooms, kitchen facilities, conference rooms, staff accommodation, enlargement of the restaurant, bar redecorations and external works and drainage.

Reclaiming the land

THE LARGEST single contract for land reclamation ever awarded by Telford Development Corporation will take about 70 weeks to complete and work on phase one of the scheme has been awarded to Tarmac under a contract worth more than £1m.

Open space, playing fields and landscaped areas are included in the project which will cost a total of £1.8m to complete.

The 175 acres involved will be temporarily restored as grazing land to be held in reserve for possible future housing development.

IN BRIEF

- Fairclough Building will modernise 90 council houses and flats in the Booth Hall Road area of Blackley, Manchester, under a £550,000 contract scheduled to take 32 weeks to complete.
- Sponsored homes for up to 50 families are being built at Andover, Hants, by E. Rendell and Sons (Lovell Group) under an £832,000 development programme being carried out in partnership with Test Valley Borough Council.
- Turriff Construction has won a £500,000 contract to build 29 flats for senior citizens for MHA Housing Association at Boswell Parkway, Edinburgh.
- English Industrial Estates Corporation announces that work has started on a number of advance factories. Two terrace unit types are to be built for the Department of Industry on the Gillmore Estate, Liverpool, by Boskalis Westminster Construction under a contract worth £650,000; a similar contract, worth £109,000, has been awarded to Kearton and Sons by the Development Commission at Haltwhistle, Northumberland; another is worth £128,000 to E. L. Greening and Sons for the Development Commission at Tavistock, Devon.
- Humphreys and Glasgow Services has been awarded a £385,000 contract by the North Tyneside MBC for the modernisation and conversion of 44 flats and external works of Phase II South Meadowvale, North Shields.
- A contract, worth over £1m has been won by the Totty Group involving alterations at the Yorkshire Electricity Board's commercial centre in Gelderd Road, Leeds.

Inspection made easier

MAIN GENERATOR propellor of a hydro electric plant in Ghana is much easier to maintain and inspect since the provision of a platform made from Climalloy equipment, reports Stephens and Carter from Kpong, Ghana.

Chief problem here is that the equipment must be assembled three-quarters of the way down the main shaft, and sit on brackets fixed on the sides of the shaft itself, says the company.

It was necessary to provide a lightweight assembly unit that could be broken down into small, handleable pieces capable of fitting through a 750 mm by 1,000 mm opening, for erecting under the main propellor.

The company says it designed the platform from Climalloy equipment with an overall area of about 12 metres for contractor Bovis. Standard and special units were fitted together to form a platform directly under the main propeller and sitting on large steel beams which in turn were fixed on to the sides of the main shaft.

Nigerian port project

WORK ON the huge Port Onne ocean terminal project 25 km south of Port Harcourt in Nigeria is now well under way says Royal Volker Stevin. When completed, it will be the country's deepest sea-port with over 50 berths capable of handling bulk cargo of over 50 to 60 thousand tonnes capacity for the import of coking coal and iron ore for the Ajaokuta steel mills and the export of Nigeria's coal.

Over 300 hectares of mangrove swamp are being cleared to provide the necessary office, workshop and manufacturing facilities, and a new village is being built to provide both temporary and permanent accommodation for the Nigerian Ports Authority as well as for Volker staff. Reclamation of the port area will then commence using sand fill.

Construction work comprises six quays each 250 metres long, three of which are for general cargo and one each for ro-ro traffic, container traffic and bulk cargo; buildings for warehouses, transit sheds, workshops, stores, offices, customs and port services; infrastructural works; water supply, treatment and distribution, and construction of roads, railroad, parking and storage areas.

THE MANAGEMENT PAGE

EDITED BY CHRISTOPHER LORENZ

The acceptance of Robert Fleming

Michael Lafferty on the merchant bank which has joined the City of London's inner sanctum

ON TUESDAY last week one of the most exclusive clubs in the City of London issued a rare public statement. It was very brief: "The Accepting Houses Committee announces that Robert Fleming and Co. Limited has accepted an invitation to become a member of the committee."

No further explanation was offered. Nor was it necessary. Robert Fleming, better known for its fund management business than its banking expertise, had arrived. It is now officially part of the inner establishment of the City of London.

Outsiders unfamiliar with the quaint ways of the City must wonder what it all means. Upon inquiry they will learn that the Accepting Houses Committee was formed by a group of leading London merchant banks on Wednesday, August 5, 1914, shortly after the outbreak of the First World War. Before the war there had been much trade between Germany and Britain. As a result there were many bills of exchange, or acceptances, outstanding which were unlikely to be met.

Little is known about that first AHC meeting, but it is presumed that after appropriate discussion the chairman called on the Governor of the Bank of England who, in the best traditions of the City, no doubt welcomed the new club, and offered it the Bank's support.

Whether or not any of the AHC members needed help at that time is not entirely clear. Suffice to say that the AHC was founded at a time of crisis for the nation.

Over the years its membership has changed and today it numbers 17 banks, each with a seat on the committee. New members are not admitted every day — the last was Singer and Friedlander in 1973.

To be invited into the club Robert Fleming had to be British-owned, of high repute, with a substantial acceptance business, and independently managed. Just how important it is to be British was well illustrated earlier this year when Antony Gibbs, one of the original AHC members, was asked to leave after being acquired by the Hong Kong and Shanghai Banking Corporation.

The significance of independent management was at the centre of another AHC resignation back in 1975 when Brandts had to go. Brandts faced a financial crisis at the time and had to be rescued by Grindlays, its main shareholder.

What real advantages accrue to Fleming as a result of AHC membership? "It does carry a certain amount of prestige," explains Bill Merton, the Fleming chairman. Indeed, there are some people who take the view that, in London, only accepting houses should be designated as merchant banks.

Then there is the obscure matter of the eligibility of AHC members' acceptances for rediscount at the Bank of England. In the event of a crisis of confidence affecting any or all of the accepting houses, the Bank of England will meet their bills of exchange. In effect it means that the Bank of England provides a form of guarantee to each accepting house, thus implying that its name is beyond doubt in the market. One consequence is that bills accepted by an AHC member command the finest rates in the money market.

Another "advantage" enjoyed by all the accepting houses—and a few other banks besides—is the right to a far lower standard of public accountability than normal companies. Quite simply, they do not have to publish accounts giving a true and fair view of their financial position and results. They can have secret reserves, which means that published capital is understated, and may smooth results from one year to the next.

This latter facility is interpreted in different ways by accepting houses. Some, like N. M. Rothschild, take the view that there is no point in publishing any profit figure, other than the amount of the annual dividend. Others, like Kleinwort Benson, like to publish figures which reflect "a trend."

Either way the accounts of the accepting houses have a low credibility rating. To this extent their managements are protected from the same degree of outside scrutiny for their successes and failures as are other companies.

Robert Fleming now finds itself in the odd position of being the only accepting house which is required by law to publish true and fair accounts. This is because it was formed and run as a fund management company until recently, and only became a recognised bank a year ago.

Not wishing to upset anyone Fleming refrained from asking for exemption from filing accounts as required under the Companies Act until it became an accepting house. But now that it is in the club, it has made its application to the Department of Trade. The outcome will be of some interest, since the Government is not known to have granted any accounting exemptions since 1969.

So it is clear that being an accepting house brings a bank certain benefits at the present time. These are both tangible, as related above, and intangible, in the nature of added prestige. On top of all this, the chairman of each accepting house is said to have direct access to the Governor of the Bank of England — a facility which is not available to all banks in the City.

But does any of this matter? Some people in the City take the view that the AHC is an out-of-date idea, that it is just another example of the clubs which divide British society, and that in any case it is becoming increasingly irrelevant. Many clearing bankers, for example, have little time for the elitism of the accepting houses.

There seems little doubt that the significance of AHC membership has been somewhat in decline in the past decade. Now the Bank of England is in the process of reconsidering the whole question of whose bills should be eligible for rediscount.

Again, looked at from the point of view of its total membership, the AHC is a mixed bag. It contains a handful of major names in the marketplace. These include banks like Kleinwort Benson, Warburgs, Morgan Grenfell, Schroders, Hill Samuel, Hambros, and maybe one or two more. But many of the other members are so small as to go virtually unnoticed in the City from one year to the next.

On this basis Robert Fleming certainly deserves to be in the club. Its balance-sheet with total assets of £223m puts it slightly above Rea Brothers and Arbuthnot Latham in size.

More to the point, perhaps, is Fleming's pre-eminence in the field of fund management, one of the three traditional areas of activity of the accepting houses—the others being corporate finance and banking. At present it has funds totalling some £3.5bn under management or advice. In addition Jardine Fleming, its joint venture with Jardine, Matheson in Hong Kong accounts for a further £2bn. These figures show that Fleming is certainly one of the largest fund managers among the accepting houses.

It may be presumed that this is because it is an above average performer in this field. About a year ago Rowe Price, one of the larger U.S. fund managers, entered a joint venture with Fleming to offer international fund management services to U.S. funds, particularly pension funds, seeking international diversification. Evidence to date suggests that Rowe Price-Fleming is more than holding its own against some of the older accepting houses which have also entered this market.

One feature of Fleming's success in fund management could well be its concentration on research. Some 25 executives are currently engaged in this, and there is evidence that their abilities extend beyond those of some other banks operating in the international fund management field. For example, Fleming's research material shows fairly clearly that it has an expertise not just in judging currencies but also an ability to judge companies in the same industry on an international basis.

Hugh Routledge

Bill Merton, chairman, and Joe Burnett-Stewart, deputy chairman, of Robert Fleming

Corporate finance, or the provision of advice to companies on their financial affairs, and takeover bids and deals, is another area where Fleming has been getting a name for itself in recent years. A decade ago it had only a handful of clients. Today the figure is closer to 70, and includes major companies like Distillers and Tarmac.

With two of the three traditional activities of the accepting houses already under its wing, it was only logical that Fleming should get into banking, and in particular into the business of accepting bills of exchange — an activity which helps to distinguish the top merchant banks.

The move came about two years ago, and was partly defensive. "We had long regarded ourselves as one of the leading merchant banks in the City. We did not want to be prevented by the 1979 Banking Act from describing ourselves as such," explains Bill Merton, who retires as executive chairman in a few months. This Act for the first time defined the type of organisation that could call itself a bank. But Joe Burnett-Stuart, his successor, says the move was not merely defensive. "We had a growing realisation of the opportunities available, and there was a lot of goodwill in our favour."

Robert Fleming dates from 1873 when a Dundee-born Scot of the same name set up the first ever Scottish investment trust. Several others followed, and the business moved to London in 1890. Mr. Fleming soon became a manager or director of many Scottish and English investment trust companies, and was influential in investing considerable sums into North American railroads, oil and cattle.

Investment trust management remained Fleming's main activity until the 1950s when it became involved in the establishment of a number of unit trusts. In particular it was instrumental in forming the Save and Prosper Group, the largest UK unit trust group. Together with close associates, Fleming now has a 26¼ per cent holding in Save and Prosper and provides the group, which is based in the same building, with research.

Fund management was taken a stage further in the 1960s when Fleming began to seek clients from among pension funds and other institutional investors. This was the most rapidly growing area of the whole business in the past decade.

Diversification away from fund management can probably be traced back to the late 1960s. First came a corporate finance department and then a move into mainstream banking was made a few years ago when the 1979 Banking Act appeared on the horizon.

Fleming established a foreign exchange desk about a year ago, and it also has a Eurobond trading desk.

Another feature of more recent expansion has been a physical presence in overseas investment markets. Most important was the creation in 1970 of a joint venture company, Jardine Fleming, with the Jardine, Matheson trading group of Hong Kong. Jardine-Fleming has offices in Tokyo, Singapore, Manila, Kuala Lumpur and Jakarta.

Fleming's only other overseas office is in New York, where last year it moved a stage further with the formation of a joint venture with Rowe Price, a U.S. investment management company.

Altogether, these different activities earned Robert Fleming over £8m pre-tax in the year to March 1980. Some £3m of this came from the banking side; a further £3m came from the unit trust business. Advisory and research activities brought in around £1m, while the Jardine Fleming profit share was also £1m.

The Fleming group itself employs almost 350 people; Jardine Fleming accounts for a further 130.

Business courses

International Capital Markets—the opportunities in London without exchange controls. London. November 25. Fee: £120 (plus VAT). Details from European Study Conferences, Kirby House, 31, High Street East, Uppingham, Rutland, Leicestershire, LE15 9PY.

Copyright Protection in Industrial Designs, London. December 4-5. Details from European Study Conferences, Kirby House, 31 High Street East, Uppingham, Rutland LE15 9PY.

Sending People Abroad, Bahrain. December 13-15. Fee: £425. Details from ORC (UK), 1 Albemarle Street, London W1X 3HF.

Advanced Management Accounting, Bradford. December 7-12. Fee: £310. Details from Course Secretary, Finance and Accounting Programmes, University of Bradford Management Centre, Heaton Mount, Keighley Road, Bradford, West Yorkshire BD9 4JU.

Winning ways of buying

"I SEE purchasing as a profit centre. Any money saved goes straight to profit." This is the view of Lindsay Hackett, senior buyer of Control Data, the UK computer and computer services subsidiary of the U.S. company of the same name.

Certainly Hackett can vouch for the profitability of purchasing in a personal sense since his knowledge of the business has just won him a £1,000 first prize in a "Buyer of the Year" competition.

Purchasing is still something of a Cinderella profession in industry. Yet, as the Institute of Purchasing and those in the business are increasingly arguing, the potential for savings is enormous. Frequently a purchasing department is responsible for 50 to 60 per cent of a company's total costs, so billions of pounds a year are being spent by such departments. Even if only 1 or 2 per cent of a company's purchasing bill is trimmed in a year the impact at the profit level can be significant.

Hackett is the fourth winner of a competition which was instigated in 1977 and, at 24, is the youngest. He is also typical of the newer breed of industrial buyer, having entered the business with a degree in economics from Warwick University. From there he joined EMI for two years before moving to Control Data 14 months ago. There, he is helping to co-ordinate the buying of equipment to the value of between £7m and £8m a year.

As the requirements of purchasing in many industries become more specialised and complex, so the demands are increasing for greater professionalism. And, as Frank Holloway—managing director, finance and supplies, the British Steel Corporation—pointed out when presenting the Buyer of the Year prizes, over 60 per cent of people now passing the Institute of Purchasing's exams have done higher education of some sort, gaining degrees or Higher National Certificates.

The Buyer of the Year competition is sponsored by the Ravensdown Group, a privately-owned group of steel and aluminium stockholding companies whose chairman and managing director, Bryan Duffield, started his working life in the purchasing department of a small company.

Until this year, the competition made no distinction as to the size of company that entrants worked for. This year, however, it was split into three categories — companies with less than £5m turnover, between £5m and £50m; and over £50m. The idea was to take account of the different characteristics of companies and provide a more even opportunity for buyers in any size of company to emerge at the top.

Hackett was the winner of the middle category, as well as being overall winner. Winner of the biggest company category was Helen Laurence, area buying manager for West Africa with the Crown Agents, while the winner of the smallest company category was Keith Blakey, purchasing controller at Stanley Power Tools, Cramlington.

Nicholas Leslie

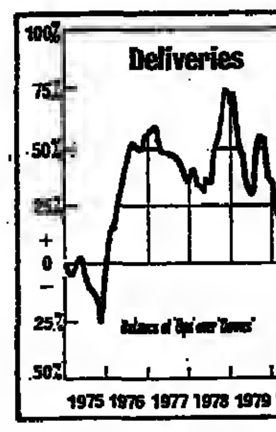
FT Monthly Survey of Business Opinion

GENERAL OUTLOOK

Slightly less pessimism

THE COMPANIES quizzed in last month's survey—in non-electrical engineering, chemicals and oils and the shipping and transport industries — reported slightly less pessimism about the business outlook than when they were last questioned in June.

The index covering general confidence about prospects has thus risen from the very depressed levels of the last two months. This seems, however, to reflect *special* factors rather than a general turnround in industry's forecasts about the future, which remains heavily tinged with foreboding.



One reason for slightly greater optimism was the feeling that the recession was bottoming out and that the economic position could hardly get worse. But low demand, high interest rates, the high exchange rate and the situation in the Middle East continued to weigh on confidence.

Chemical companies have been particularly hit by the downturn in world trade.

The bleak industrial outlook was also reflected in a further drop in the index covering *optimism* about *prospects* for the UK economy. This had been fairly buoyant earlier in the year. Chemicals and oils were particularly gloomy about the domestic position.

GENERAL BUSINESS

Are you more or less optimistic about your company's prospects than you were four months ago?	July-Oct. %	June-Sept. %	May-Aug. %	Apr.-July %	Eng. (non-elect.) %	Chemicals & Oils %	Shipping and Transport %
	4 monthly moving total				October 1980		
More optimistic	21	16	15	22	26	21	65
Neutral	25	25	27	33	19	30	9
Less optimistic	54	59	58	45	55	49	26

EXPORT PROSPECTS (Weighted by exports)

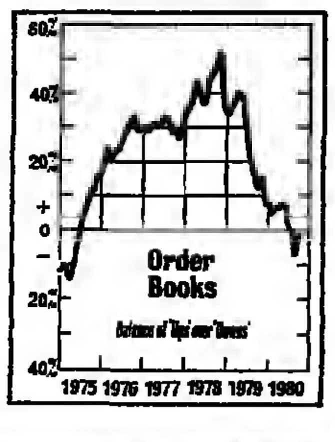
Over the next 12 months exports will be:	July-Oct. %	June-Sept. %	May-Aug. %	Apr.-July %	Eng. (non-elect.) %	Chemicals & Oils %	Shipping and Transport %
	4 monthly moving total				October 1980		
Higher	51	50	48	48	42	53	88
Same	30	27	21	20	45	20	—
Lower	17	21	29	30	13	17	12
Don't know	2	2	2	2	—	10	—

ORDERS AND OUTPUT

Steep drop in demand

ALL THREE sectors reported a steep drop in new orders as a result of the deepening recession. The index covering orders received over the past four months plummeted to a *record low*.

The sharp downturn in demand was also reflected in a steep decline in recent deliveries. Partly because of the low level of recent orders, companies on the whole said they expected order books to increase in size from present levels.



Among factors bemoaned by individual groups, the engineering companies said lower orders from nationalised industries and constraints on capital investment were hitting demand.

The chemical sector complained of competition from imports made from cheaper energy sources and general destocking by distributors of *consumer chemicals* on account of high interest rates.

General price cutting, particularly for passenger traffic, a drop in oil shipments caused by the Gulf war and declining iron ore deliveries because of the steel recession, were all cited as severe depressants in the shipping and transport industry.

Plans for increases in output over the next 12 months have been scaled down drastically in all sectors.

NEW ORDERS

The trend of new orders in the past 4 months was:	July-Oct. %	June-Sept. %	May-Aug. %	Apr.-July %	Eng. (non-elect.) %	Chemicals & Oils %	Shipping and Transport %
	4 monthly moving total				October 1980		
Up	14	18	25	29	—	—	33
Same	13	15	13	15	6	—	—
Down	59	48	39	29	49	100	49
No answer	14	19	23	27	45	—	18

PRODUCTION/SALES TURNOVER

Those expecting production/sales turnover in the next 12 months to:	July-Oct. %	June-Sept. %	May-Aug. %	Apr.-July %	Eng. (non-elect.) %	Chemicals & Oils %	Shipping and Transport %
	4 monthly moving total				October 1980		
Rise over 20%	2	3	3	3	—	—	—
Rise 15-19%	2	2	1	5	—	—	—
Rise 10-14%	5	5	3	2	—	—	8
Rise 5-9%	13	10	9	12	26	28	8
About the same	54	64	64	64	21	21	37
Fall 5-9%	6	5	6	4	16	—	—
Fall over 10%	11	6	6	3	2	30	40
No comment	7	5	8	7	35	21	7

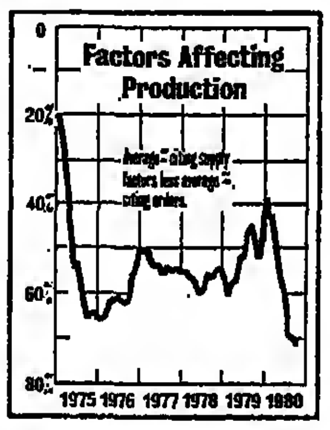
CAPACITY AND STOCKS

Well below planned working

MOST COMPANIES are still working well below planned output levels. The index measuring capacity utilisation, which has been falling steeply this year, fell slightly further last month although the drop seems to be levelling off.

All three sectors say the recession is impeding efforts to plan ahead. Nearly half the companies questioned last month said they had plant or machinery standing idle because of weak demand.

More companies are reporting that production is being affected by demand shortages rather than lack of labour or materials.



The shipping and transport sector was rather more hopeful about relief from higher exports in coming months. But the high exchange rate is seen generally as a dampener on chances for foreign sales—particularly in the price-sensitive oil and chemical industry.

Respondents indicated that they are running down stocks to conserve cash, continuing the trend of previous months. This has brought some adjustment of stocks to more favourable levels, particularly for chemical concerns.

CAPACITY WORKING

	July-Oct. %	June-Sept. %	May-Aug. %	Apr.-July %	Eng. (non-elect.) %	Chemicals & Oils %	Shipping and Transport %
	4 monthly moving total				October 1980		
Above target capacity	2	4	5	6	—	—	—
Planned output	34	34	39	50	35	28	43
Below target capacity	59	59	55	43	59	58	49
No answer	5	3	1	1	6	14	8

STOCKS

Raw materials and components over the next 12 months will:	July-Oct. %	June-Sept. %	May-Aug. %	Apr.-July %	Eng. (non-elect.) %	Chemicals & Oils %	Shipping and Transport %
	4 monthly moving total				October 1980		
Increase	13	12	20	29	6	28	—
Stay about the same	52	56	51	45	35	28	44
Decrease	28	29	25	21	53	30	16
No comment	7	3	4	5	6	14	40
Manufactured goods over the next 12 months will:							
Increase	10	7	13	20	6	28	—
Stay about the same	42	46	44	46	54	30	9
Decrease	20	21	17	13	3	21	—
No comment	28	26	26	21	37	21	91

FACTORS CURRENTLY AFFECTING PRODUCTION

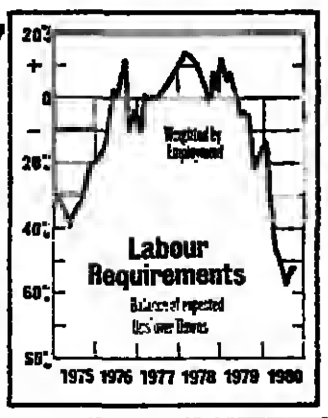
	July-Oct. %	June-Sept. %	May-Aug. %	Apr.-July %	Eng. (non-elect.) %	Chemicals & Oils %	Shipping and Transport %
	4 monthly moving total				October 1980		
Home orders	94	95	91	87	100	100	49
Export orders	56	55	56	49	88	72	49
Executive staff	3	1	2	4	—	14	—
Skilled factory staff	6	8	8	9	6	—	—
Components	1	1	—	1	—	—	—
Raw materials	6	6	6	9	—	—	8
Production capacity (plant)	6	8	8	7	—	—	8
Finance	6	6	5	3	—	—	—
Others	3	4	2	4	—	—	33
Labour disputes	8	8	10	8	6	—	8
No answer/no factor	3	3	5	9	—	—	3

INVESTMENT AND LABOUR

Further drop in capital spending

INDUSTRY IS continuing to cut back sharply its future plans for capital investment as the recession bites into business confidence.

The engineering and chemical and oil sectors were especially inclined to cut back on investment spending, although shipping and transport was less gloomy. The investment intentions index has been plummeting steeply practically every month this year.



Plans for new factories, office blocks, development of an oil field and acquisitions of vehicles and ships have all been axed, according to the respondents.

The index measuring companies' planned labour requirements, which has been declining fast in recent months, stabilised slightly last month.

The engineering, chemical and oil sectors were all more inclined to expect their workforces to decrease. But the shipping and transport group, which had been particularly pessimistic about labour force prospects when last asked in June, generally expected no further cuts.

LABOUR REQUIREMENTS (Weighted by employment)

Those expecting their labour force over the next 12 months to:	July-Oct. %	June-Sept. %	May-Aug. %	Apr.-July %	Eng. (non-elect.) %	Chemicals & Oils %	Shipping and Transport %
	4 monthly moving total				October 1980		
Increase	6	6	8	8	—	2	—
Stay about the same	35	32	26	30	58	44	99
Decrease	58	60	65	61	42	54	1
No comment	1	2	1	1	—	—	—

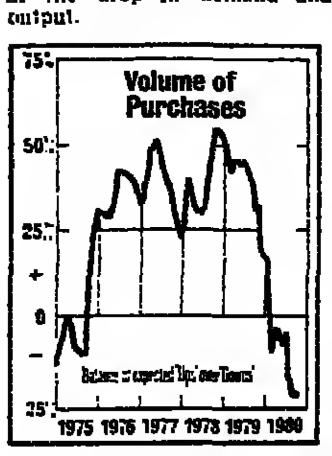
CAPITAL INVESTMENT (Weighted by Capital Expenditure)

Those expecting capital expenditure over the next 12 months to:	July-Oct. %	June-Sept. %	May-Aug. %	Apr.-July %	Eng. (non-elect.) %	Chemicals & Oils %	Shipping and Transport %
	4 monthly moving total				October 1980		
Increase in volume	22	26	30	29	—	39	—
Increase in value but not in volume	6	10	14	18	—	—	21
Stay about the same	34	23	18	17	36	55	38
Decrease	29	33	33	32	54	5	41
No comment	9	8	5	4	10	1	—

COST AND PROFIT MARGINS

Smaller wage rises expected

COMPANIES' expectations both of increases in wage costs and of planned price rises have been revised downwards as a result of the drop in demand and output.



Very few companies now expect increases in wages of more than 15 per cent over the next 12 months and the engineering sector was particularly hopeful of recording single-figure wage rises. The general index for the median expected increases in hourly wage rates over the next year has fallen nearly 1 percentage point to 14 per cent.

There has been a similar drop in expectations about increases in unit costs.

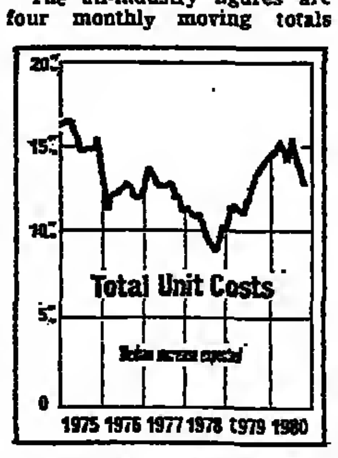
All three sectors forecast smaller price increases over the next 12 months than they had done last June. The figure for the median expected increase has dropped to about 12½ per cent from above 13 per cent.

Partly because of the slowdown in cost increases, companies were more hopeful of increasing profit margins during the next 12 months. This index showed an increase for the first time since April.

The business opinion survey is carried out for the Financial Times by the Taylor Nelson Group and is based upon interviews with senior executives.

Three sectors and some 30 companies are covered each month in turn. They are drawn from a sample based upon the FT Actuaries index which accounts for about 60 per cent of all public companies.

The all-industry figures are four monthly moving totals



covering 120 companies in 11 industrial sectors (mechanical engineering is surveyed every *second month*).

Complete tables can be purchased from Taylor, Nelson and Associates, 457, Kingston Road, Ewell, Epsom, Surrey.

COSTS

Wages rise by:	July-Oct. %	June-Sept. %	May-Aug. %	Apr.-July %	Eng. (non-elect.) %	Chemicals & Oils %	Shipping and Transport %
	4 monthly moving total				October 1980		
5-9%	10	6	4	—	68	7	—
10-14%	45	42	28	20	20	51	67
15-19%	31	35	47	62	—	42	—
20-24%	6	10	13	11	—	—	—
No answer	8	7	8	7	12	—	33
Unit cost rise by:							
0-4%	2	2	1	—	—	—	—
5-9%	17	16	8	6	28	—	1
10-14%	33	31	39	38	29	23	11
15-19%	26	32	35	38	32	49	40
20-24%	1	2	3	3	—	—	—
30%	—	—	—	—	2	—	—
Same	3	1	—	—	—	14	—
Decrease	1	1	1	—	—	—	—
No answer	17	15	13	15	9	14	48

PROFIT MARGINS

Those expecting profit margins over the next 12 months to:	July-Oct. %	June-Sept. %	May-Aug. %	Apr.-July %	Eng. (non-elect.) %	Chemicals & Oils %	Shipping and Transport %
	4 monthly moving total				October 1980		
Improve	22	19	19	28	—	49	66
Remain the same	38	38	38	30	35	21	23
Contract	32	37	36	35	59	16	—
No comment	8	6	7	7	6	14	11

APPOINTMENTS

Newman Industries finance director

Mr. Peter J. Hughes has joined the NEWMAN INDUSTRIES as *finance director*. Mr. Hughes has been a consultant to the company since August. He was previously finance director of Cope Allman International.

★

Mr. G. Gwilym Evans, chairman and managing director of Severn Engineering, has been re-elected president of THE BRITISH AGRICULTURAL AND GARDEN MACHINERY ASSOCIATION.

★

Mr. Basil Feldman has been re-appointed to serve a second term as chairman of the ECONOMIC DEVELOPMENT COMMITTEE FOR THE CLOTHING INDUSTRY. New members of the EDC are: Mr. G. N. Hague, chairman of the Overalls Manufacturers Association, Mr. T. E. Harmer, *chairman of the Clothing* Manufacturers' Federation, Mr. H. Leffman, member of the Executive Committee of the Corsetry Manufacturers' Association, Mr. J. Mannion, chairman of the executive Board of the NUTGW and Mr. P. Robinson, assistant secretary at the Department of Industry, responsible for the clothing industry.

★

Mr. E. W. *Summers, a director* of the electrical division of COURTNEY POPE (HOLDINGS) has been appointed chairman of the companies. Mr. L. R. Courtney has retired as chairman and from the Board.

★

Mr. W. H. Wainwright has been appointed director of syndications of BANQUE ARABE ET INTERNATIONALE D'INVESTISSEMENT. He comes to BAII from the Bank of America where he was vice-president, head of merchant banking group, Latin America, Carribean Division.

★

Wigham Poland has formed WIGHAM POLAND NON-MARINE, which is divided into two divisions, responsible for technical services and *production. The Board of the* new company is Mr. Clive M. Sasserath, Mr. Kenneth R. Barker, Mr. Michael R. Coombs, Mr. Peter D. Minor and Mr. Trevor J. Routledge.

★

Mr. H. V. Walker has become managing director to the PROVINCIAL INSURANCE GROUP. Mr. Walker has held a number of positions within the group and he joined the Board of both Provincial and Provincial Life in 1977. Prior to his new appointment, he had been chief general manager since December 1979.

★

Mr. Merric Prince, managing director of Shepherds Grove Mushrooms, has been appointed chairman of the MUSHROOM GROWERS' ASSOCIATION. Mr. Peter Cracknell retires as chairman but remains on the executive committee as chairman of the marketing and publicity committee. The new vice chairman is Mr. Harold Linfield, of A. G. Linfield. Mr. Hugh Barton of Winterpick Mushrooms, has been re-elected treasurer.

★

Mr. W. L. Young has been appointed chairman and Mr. R. J. Pritchard, managing director, of WEIR-POLYPAC. Mr. J. A. F. Litherland becomes design and development director. Mr. R. K. Jeavens, executive director, engineering, and Mr. A. Glasson, executive director, manufacturing, join the Board. The company is a subsidiary of the Weir Group.

★

Marsden W. Hargreave and Co., stockbrokers of Blackpool, and W. L. B. Hale and Co., of St. Annes-on-Sea, are to merge on November 10. Partners of both concerns will form the new firm, trading under the name of MARSDEN W. HARGREAVE HALE AND CO., with the exception of Mr. D. Rothwell and Mr. J. D. Jones who become associates.

هكذا من الأصل

CONTRACTS AND TENDERS

DEMOCRATIC REPUBLIC OF THE SUDAN
SEA PORTS CORPORATION
PORT SUDAN DEVELOPMENT—STAGE 2

INTERNATIONAL PUBLIC TENDER FOR
(A) MAIN CIVIL WORKS CONTRACT.
(B) EXISTING GRAIN SILO UPGRADING CONTRACT.
(C) HEADQUARTERS OFFICE BUILDING CONTRACT.
(D) PRIVATE ELECTRICAL POWER GENERATION WORKS CONTRACT

NOTIFICATION OF PREQUALIFICATION

Notice is hereby given that Livesey and Henderson, Consulting Engineers to the Sudan Sea Ports Corporation, will receive applications from construction firms from Member Countries of the International Bank for Reconstruction and Development and from Switzerland and Taiwan who are hereby invited to apply for prequalification to participate in the bidding for the works described below at Port Sudan.

DESCRIPTION OF THE WORKS

(a) Main Civil Works Contract
— Construction of two new deep-water berths, with associated dredging and reclamation
— Construction of new oil terminal to accept vessels up to 80,000 dwt, with associated dredging and reclamation
— Completion of roll-on/roll-off berth
— Seaward extension of existing Berths 17 and 18
— Redevelopment of land areas behind existing and new quays, including road access improvements and surfacing of open storage areas (about 300,000m2)
— Lifting, refurbishing and relaying rail track (about 8,000m);
— Construction of a number of small buildings
— Provision of electrical and other services to new facilities and improvements to existing electrical and telephone services
— Minor civil works in connection with Grain Silo Upgrading

(b) Grain Silo Upgrading Contract
— Upgrading existing Grain Silo import and export capacity
— Provision of new ship loader/unloader
— Extension of import and export conveyors
— Improvement of rail wagon intake system
— Associated electrical work
Note: Associated civil engineering work will be under Civil Works Contract

(c) Headquarters Office Building Contract
— Construction of five-storey office building, comprising two interconnected blocks (floor area about 6,400m2)
— Construction of conference hall and cafeteria (floor area about 500m2)
— Provision of central air conditioning system (to be carried out by a nominated sub-contractor)
— Construction of an electrical sub-station, including provision of standby generation
— Landscaping works

(d) Private Electrical Power Generation Works Contract
— Provision of standby generation facilities for quay cranes and grain silo complex, and replacement of mercury arc rectifiers ("Top Priority" Works).
— Provision of standby generation facilities to all other existing port electrical systems ("High Priority" Works)
— Improvements to electrical systems in main port buildings ("Medium Priority" Works)
— Improvements to electrical systems in transit sheds and minor port buildings ("Low Priority" Works)

FINANCING OF THE WORKS
Discussions between the Government of the Democratic Republic of the Sudan and the International Development Association are proceeding with the object of arranging a Credit that would provide for assistance in financing the cost of the Works.

CONSTRUCTION PERIOD
The following are the anticipated periods of construction:
— Main Civil Works Contract: 27 months
— Grain Silo Upgrading Contract: 18 months
— Headquarters Office Building Contract: 24 months
— Private Electrical Power Generation Works Contract: 24 months

CONSTRUCTION PROGRAMME
The Main Civil Works will be programmed in a sequence acceptable to Sea Ports Corporation and will interfere as little as possible with the operation of the Port. The Grain Silo Upgrading Works will be undertaken in an operating silo complex and will necessitate close co-operation with the silo operator.

CONTRACT CONDITIONS
The Conditions of Contract for all Contracts will be generally to FIDIC (International) Conditions.

RETURN OF PREQUALIFICATION DOCUMENTS
Completed prequalification documents shall be returned in a sealed envelope by noon on Thursday, 11 December 1980 to Livesey & Henderson, Albury House, Albury, Guildford, Surrey GU5 9BP, England.

ACCEPTANCE
Prequalification shall be at the discretion of the Sea Ports Corporation.

PREQUALIFICATION DOCUMENTS
Documents may be obtained from Livesey & Henderson, Albury House, Albury, Guildford, Surrey GU5 9BP, England.

In the case of National Contractors, documents may be obtained from Sea Ports Corporation, P.O. Box 2534, Khartoum.

HASSAN A. HASSAN DIRECTOR OF PROJECTS for CHAIRMAN SEA PORTS CORPORATION

SIDERURGICA DEL ORINOCO, C.A.
SIDOR

INTERNATIONAL PUBLIC BIDDING
AS IS, WHERE IS
for:

ITEM 1 — Twin-screw passenger ship "Cristoforo Colombo," 29,429 gross tons, built 1954-7. The ship is moored at the premises of Sidor C.A., at Matanzas, Ciudad Guayana; Estado Bolivar, Venezuela, and used since May, 1977, as a hotel accommodation vessel. Classification Lloyd's: + 100 A1, + LMC, + Lloyd's RMC, "Accommodation Ship," "Laid Up."

ITEM 2 — Two pontoons: "Gemini Alpha" and "Gemini Beta," 262 gross tons, built 1976-4, moored as above. Classification Lloyd's: + 100 A "Pontoon."

ITEM 3 — Floating bridge, max. trim 10%. Length 129.2 m, width 5.74 m, capacity 32 tons, axle load 8.5 tons, consisting of:
A)—Two sections length 30.8 m each,
B)—Two sections length 34.2 m each,
C)—Three floating units 20.0 x 5.0 x 1.5 m each.

A. SALE CONDITIONS
1. As is, where is.
2. Payment by irrevocable letter of credit in the name of C.V.G. Siderurgica del Orinoco, C.A., confirmed by a Venezuelan bank accepted by Sidor and opened at the moment of awarding of the bid.
3. Bids should include the offered price for each item and preference will be given to those bids which comprise all offered items. However, bids for individual items will also be accepted.
4. The offered items may be inspected by request to Eng. Victor Gallo, No. A07-308 Sidor, Matanzas, Estado Bolivar, Venezuela. Tels: 086-991812, 086-991440, and 086-991827. Telex No. 86374.

B. BIDDING REQUIREMENTS
Each offer should be accompanied by a bidding bond in favour of C.V.G. Siderurgica del Orinoco, C.A., (Sidor) and issued by a bank accepted by Sidor against a value of:
For Item 1.D — US$200,000.00
For Item 2.D — US$ 20,000.00
For Item 3.D — US$ 10,000.00

C. AWARDING OF THE BIDS
Each item will be awarded to the highest bidder upon the opening of the bids, except for the preference case. (Total bid pointed out in A.3 of sale conditions, in which Sidor will select its most convenient bid.)
Sidor allows one week laytime upon completion of transfer.

D. OPENING OF THE BIDS
Bids should be forwarded in triplicate with one bid per envelope and will be received in the bidding committee conference room of the Gerencia de Proyectos y Construccion of Sidor at Matanzas, Ciudad Guayana, Estado Bolivar, Venezuela on the 28th November, 1980 at 10:00 a.m., Venezuelan time.

E. RESERVE CLAUSE
Sidor reserves the right to extend or to suspend the bidding process, or to take any other decision regarding the bidding process on its behalf, and in this case, no claims from bidders or third parties will be accepted. In addition, the entire process is subject to the obtainment of the normal Government permits.

CONTRACTS AND TENDERS APPEAR EVERY MONDAY

For further information phone
JOHN WISBEY
01-248 8000 Ext. 316

EMPRESA NACIONAL DE ELECTRICIDAD S.A.
ENDESA
REPUBLIC OF CHILE
COLBUN PROJECT
TRANSMISSION SYSTEM
INTERNATIONAL PREQUALIFICATION

Empresa Nacional de Electricidad S.A., ENDESA, intends to invite tenders during 1981 for the Colbun Transmission System. The Colbun Project entails the construction of two hydroelectric power stations with a combined capacity of 490 MW in its first stage. The Colbun Transmission System, which will represent a significant expansion of the National Grid, will consist of:
— 220-KV Switchyard at Bolbun Substation.
— 220-KV Switchyard at Machicura Substation.
— 500-KV Switchyard at Colbun Substation, including 220/500-KV transformers.
— 500-KV Single-Circuit Transmission Line Colbun—El Rodeo—Alto Jahuel (275 km).
— Modification of the existing transmission line Colbun-Alto Jahuel of 220-KV double-circuit to a single circuit of 500-KV (235 km).
— 500-KV Switchyard at Alto Jahuel Substation, including 220/500-KV transformers.
— Expansion of the existing 220-KV Alto Jahuel Substation.
— Complementary works and equipments.

ENDESA wishes to provide opportunities for private investment and, therefore, intends to invite tenders for the Colbun Transmission System on two alternative bases:

ALTERNATIVE 1: CONSTRUCTION
ENDESA will contract, on a turnkey basis, the construction, supply, erection and commissioning of the Transmission System. Bidders will be required to offer finance in support of their bids.

ALTERNATIVE 2: CONSTRUCTION AND SERVICE
ENDESA will contract a power transmission service with a concession company, which will construct for its own account and own the 500-KV section of the Transmission System (but not the existing 220-KV transmission line, once upgraded to 500 KV). In addition, ENDESA will erection and commissioning of the remainder of the Transmission System, with finance to be contract, for its own account, with the same concession company the construction, supply, offered by bidders. In evaluating bids, other conditions being equal, ENDESA will give preference to the Construction and Service alternative.

ENDESA invites PREQUALIFICATION applications for either or both alternatives. Applications may be from individual companies or from consortia, but applicants must demonstrate their ability to undertake the design, construction, supply, erection and commissioning of the entire Transmission System.

In the Construction and Service Alternative, ENDESA wishes to receive proposals from applicants as to the form and content of the power transmission service contract between ENDESA and the concession company. This will assist ENDESA in drawing up the bid specifications on an equitable basis.

Under either alternative, ENDESA will invite bids only from prequalified companies and consortia.

PREQUALIFICATION documents may be requested from Monday, 10th of November, 1980 by letter, telex or in person from:

ENDESA
Jefe Departamento de Estudios para la Construcción
Santa Rosa, No 76, Piso 11
Santiago, Chile

In addition, the PREQUALIFICATION documents may be also requested from:
ENDESA's Representative in New York
One World Trade Center, Suite 5151
Manhattan, N.Y. 10048, USA
Domestic Telex: 128203 FOMENTO NYK
From other countries, Telex: 420722 FOM-UE

Prices for each set of these documents are as follows:
Spanish version $3,900 (Chilean pesos), (US$100)
English version $4,875 (Chilean pesos), (US$ 125)
Registered air mail delivery of these documents will have an extra charge of $390 (Chilean pesos) or US$10 each

The information requested in the PREQUALIFICATION documents must be received by ENDESA not later than January 27th, 1981.

EMPRESA NACIONAL DE ELECTRICIDAD S.A.
P.O. BOX 1392, SANTIAGO, CHILE
TELEX: 40491—NDESA—CL

COMPANY NOTICES

Compagnie Financiere de Paris et des Pays-Bas

NOTICE TO SHAREHOLDERS

The Board of Directors of the Company has decided to distribute an interim dividend for the Financial Year 1980, payable from 17th November, 1980 at the rate of F.Frs. 7.00 per share of F.Frs. 100 nominal.

Bearer Share Certificates
Against presentation of Coupon No. 173, residents of the United Kingdom will receive F.Frs. 5.64 per certificate of F.Frs. 100 nominal (see Settlement of Additional Payments below).
Coupons will be paid at the rate of exchange ruling on the day of presentation.

Bearer Deposit Certificates
Against presentation of these Certificates for marking of Square No. 10 residents of the United Kingdom will receive F.Frs. 0.282 per Certificate of F.Frs. 5 nominal (see Settlement of Additional Payments below).
Certificates will be paid at the rate of exchange ruling on the day of receipt of the dividend on the underlying shares deposited in France.

Settlement of Additional Payments
Under the terms of the Double Taxation Convention between France and the United Kingdom, residents of the United Kingdom will receive, subject to completion of Form RF-4 GB, on or after 15th January, 1981 an additional F.Frs. 3.285 per Bearer Share or F.Frs. 0.16425 per Bearer Deposit Certificate thus increasing their dividend entitlements to F Frs. 8.925 per share or F.Frs. 0.44625 per Bearer Deposit Certificate.

Holders are advised to submit Form RF-4 GB at the time of presentation of Coupons and/or Bearer Deposit Certificates. Nevertheless for Coupons detached from securities deposited in a bank in France or the United Kingdom which in absence of proofs at the time of their payments have been paid at the net price of F.Frs. 5.64 per Bearer Share or F.Frs. 0.282 per Bearer Deposit Certificate can be subject to a later repayment up to 31st December, 1981 on production of the above mentioned documents.

Payments in respect of Coupons and Bearer Deposit Certificates will be subject to deduction of United Kingdom Income Tax at the standard rate of 30% unless claims are accompanied by an affidavit.

Coupons and Bearer Deposit Certificates should be lodged with:—
S. G. WARBURG & CO. LTD.,
Coupon Department, St. Albans House,
Goldsmith Street, London EC2P 2DL
from whom appropriate claim forms and further information can be obtained.

Compagnie Financiere de Paris et des Pays-Bas
3rd November 1980

PACIFIC BASIN FUND
10a, Boulevard Royal, Luxembourg
NOTICE TO SHAREHOLDERS

At 30th September, 1980, the net assets of the Fund amounted to US$23,178,384.31 and were represented by

	US$	%
—Investment Portfolio: (Cost: US$17,458,720.45) Market value:	22,061,506.44	95.18
—Cash in bank	172,096.30	0.74
—Accounts receivable	1,620,267.58	7.02
—Less: accounts payable	(682,528.01)	(2.94)
Total net assets	23,179,364.31	100.00

The net asset value for each of the 1,290,912 shares outstanding was US$17.96, figure which is to be compared with an inception price of US$10.— as at 9th February, 1979.

The investment portfolio was geographically distributed as follows:

Australia	18.59%
Hong Kong	21.52%
Japan	3.35%
Malaysia	22.95%
Philippines	1.98%
Singapore	24.03%
United States of America	2.78%
Total	95.10%

Since the inception of the Fund on 9th February, 1979, its operations resulted in an increase in net assets amounting to US$14,881,570.
The above figures are unaudited.

• • •

The information set forth above are historical and are not necessarily indicative of future results.
No subscription can be received on the basis of this notice.
Subscriptions are valid only if made on the basis of the Current Prospectus (dated May 1979) which will be accompanied by a copy of the latest available annual report and a copy of the latest available semi-annual report, if published after such annual report.

• • •

Copies of the prospectus, Annual Report at 31st December, 1979, and Semi-Annual Report at 30th June, 1980 of Pacific Basin Fund can be obtained at the offices of the sponsors:
—Banque de Paris et des Pays-Bas, 3, rue d'Antin, 75060 Paris, France.
—Euro-Kuwaiti Investment Company KSC, Al-Awadi Tower, Ahmed Al-Jaber Street, Sharq, Kuwait.
—M & G Group Ltd., Three Quays, Tower Hill, London, E.C.3, U.K.
—Joseph Sebag & Co. (Far East) Ltd., Hutchison House, 1001 Hong Kong.
—Watson & Co., 12 Harcourt Road, Gammon House, 1806 Hong Kong.
—Yamaichi International (Europe) Ltd., St. Alphage House, 2 Fore Street, London, E.C.2, U.K.

PACIFIC BASIN MANAGEMENT COMPANY SA
Luxembourg, 20th October, 1980.

COMPAGNIE FINANCIÈRE DE SUEZ.
Société Anonyme registered in France with a capital of F.942,177,100
Registered Office: 1, rue d'Astorg, 75008 Paris

EXTRAORDINARY GENERAL MEETING OF SHAREHOLDERS
6th November 1980

NOTICE IS HEREBY GIVEN that, since the Extraordinary General Meeting called for 29th October 1980 could not validly be held owing to lack of a quorum, the Extraordinary General Meeting will now be held on Thursday, 6th November 1980, at 2.30 p.m. at the Salle Pleyel, 252 rue du Faubourg Saint-Honoré, 75008 Paris, with the same Agenda, i.e.:
—Reports of the Directors and Auditors;
—Increase of share capital from F.942,177,100 to F.1,413,265,650 by incorporation of an amount of F.471,088,550 appropriated from various premiums and reserves, and the corresponding raising of the nominal value of the shares from F.100 to F.150; consequent amendment of Article 5 of the Articles of Association; delegation of powers to the Directors;
—New authority to be given to the Directors to increase the share capital by a maximum amount of F.500,000,000, in one or several stages and by every means;
—Authority to be given to the Directors to issue bonds convertible into shares for a maximum amount of F.1,000,000,000 on the French and international market, with waiver of preferential right of subscription, but with right of priority for issues made in France;
—Delegation of powers regarding compliance with formalities.

All shareholders, whatever the number of shares they hold, may take part in this Meeting. An attendance allowance of F.20 will be granted to each shareholder present.

Attention is called to the fact that no one can act as proxy for a shareholder at the Meeting unless that person is a shareholder, or the spouse, or the legal representative of the said shareholder (Art. 34, para. 5 of Articles).

Holders of registered share certificates will receive direct from Compagnie Financière de Suez the forms required to attend this Meeting or be represented thereat.

Joint owners are required to appoint one of themselves to deal on their behalf with the Company and the person so appointed shall be regarded as the owner.

In accordance with the requirements of Article 163 of the Act of 24th July 1966 and of Article 15 of the Articles, persons not beneficially entitled to the income from shares are called to this Extraordinary General Meeting.

To have the right to attend or be represented at this Meeting, holders of registered share certificates must be entered on the Company's registers at least five days before the date of the Meeting, and holders of share warrants to bearer must deposit either their securities or the certificate of deposit of these securities at the Registered Office of the Company or with Banque de l'Indochine et de Suez, 62-64 Bishopsgate, London, EC2N 4AR, also at least five days before the Meeting.

Shareholders unable to attend the Meeting but wishing to be represented thereat must lodge proxy papers with the Company at least five days before the Meeting (Art. 34 of Articles).

Shareholders who intend to be present at the Meeting are requested to notify the Company's Registered Office as soon as possible, but at least five days before the date of the Meeting.

BY ORDER OF THE BOARD

UNITED DOMINIONS TRUST LIMITED
8¾% Capital Bonds 1988

S. G. WARBURG & CO. LTD., announce that the sixth instalment of Bonds for a nominal value of U.S.$1,000,000 have been purchased for redemption on 1st December, 1980.

U.S.$20,500,000 nominal Bonds will remain outstanding after 1st December, 1980.

30 Gresham Street,
London EC2P 2EB.
3rd November, 1980

NATIONAL BANK OF HUNGARY
U.S.$59,000,000 8½% BONDS 1987

NOTICE IS HEREBY GIVEN that holders of U.S.$240,000 nominal of the Bonds have exercised their right for the redemption of their holdings of such Bonds at par on 3rd November, 1980. Following such redemption the nominal amount of Bonds outstanding will be U.S.$5,568,000.

Fiscal Agent and Principal Paying Agent
MORGAN GRENFELL & CO. LIMITED,
23 Great Winchester Street,
London EC2P 2AX.
3rd November, 1980.

EUROPEAN COAL AND STEEL COMMUNITY
9¼% Sterling/U.S. Dollar Option Bonds due 1st December 1989

The Commission of the European Communities announces that the annual instalment of Bonds amounting to £850,000.00 nominal value has been purchased for the redemption due on 1st December, 1980.

11th November 1980

TELEFONAKTIEBOLAGET L M ERICSSON
9¼% BONDS 1985

S. G. WARBURG & CO. LTD., announce that the redemption instalment of U.S.$2,250,000 nominal bonds, due 1st December, 1980, has been met in full by purchases in the market.

U.S.$14,700,000 nominal bonds will remain outstanding after 1st December, 1980.

30, Gresham Street,
London EC2P 2EB.
3rd November, 1980.

TENDERS FOR GREATER LONDON BILLS

1. The Greater London Council hereby give notice that Tenders will be received at the Chief Registrar's Office (Bank Buildings), Bank of England, London, EC2R 8EU, on Monday, 10th November, 1980, at 12 noon for Greater London Bills to be issued in conformity with the Greater London Council (General Powers) Act, 1967, to the amount of £35,000,000.
2. The Bills will be in amounts of £5,000, £10,000, £25,000, £50,000, £100,000 or £250,000. They will be dated Thursday, 13th November, 1980, and will be due 91 days after date, without days of grace.
3. Each Tender must be for an amount not less than £25,000, and must specify the net amount per cent. (being a multiple of one new halfpenny) which will be given for the amount applied for.
4. Tenders must be made through a London Banker, Discount House or Broker.
5. The Bills will be issued and paid at the Bank of England.
6. Notification will be sent by post, on the same day as Tenders are received, to the persons whose Tenders are accepted in whole or in part and payment in full of the amounts due in respect of such accepted Tenders must be made to the Bank of England, by means of cash or by draft or cheque drawn on the Bank of England not later than 1.30 p.m. on Thursday, 13th November, 1980.
7. Tenders must be made on the printed forms which may be obtained either from the Bank of England, or from the Council's Offices at The County Hall.
8. The Greater London Council reserve the right of rejecting any Tenders.

M. F. STONEFROST,
Comptroller of Finance.

The County Hall,
London SE1 7PB.
3rd November, 1980.

AQUITAINE COMPANY OF CANADA LTD.
(Incorporated with limited liability under the laws of Canada)

Head Office:
2,000 Aquitaine Tower
540 - 5th Avenue S.W.
CALGARY, Alberta T 2P 0M4
Canada.

FIRST NOTICE TO HOLDERS OF NOTES 11¼% 1980-1985 OF US$1,000 EACH

The holders of international notes 11¼% 1980-1985 issued by AQUITAINE COMPANY OF CANADA LTD. are convened to an Ordinary General Meeting to be held at 50 boulevard Haussmann, Paris 9e (France), on December 3rd, 1980 at 3 p.m. in order to consider the following agenda:
—Appointment of the noteholders' permanent representatives, designation of the substitute representatives.
—Determination of the noteholders' representatives' capacities and of the indemnities given to the permanent representatives.

To permit the noteholders to attend or to be represented at this meeting, the notes or their deposit receipts, must be deposited at least five days before the date fixed for the meeting, at the offices of the banks having participated in the placing of these notes and from whom proxies or admission cards can be requested. This meeting shall be validly held if the holders of 25% of the outstanding notes are present in person or represented.

The Board of Directors.

CANADIAN PACIFIC LIMITED
(Incorporated in Canada)

CANADIAN PACIFIC LIMITED
PERPETUAL 4% CONSOLIDATED DEBENTURE STOCK
NEW BRUNSWICK RAILWAY 4% DEBENTURE STOCK
CALGARY & EDMONTON RAILWAY 4% DEBENTURE STOCK

In preparation for the payment of the half-yearly interest due January 1, 1981, on the above Stocks, the transfer books will be closed at 3.30 p.m. on November 28, 1980 and will be re-opened on January 2, 1981.

W. E. REEVE
Deputy Secretary

50 Finsbury Square,
London, EC2A 1DD
November 3, 1980

NOTICE OF RATE OF INTEREST
BANQUE EXTERIEURE D'ALGERIE
US$40,000,000 FLOATING RATE NOTES DUE 1985

In accordance with the provisions of the Agency Agreement between Banque Exterieure d'Algerie, and Citibank, N.A., dated as of October 17, 1978 notice is hereby given that the Rate of Interest has been fixed at 15⅞% and that the Coupon Amount payable on May 5, 1981 against Coupon No. 5 will be U.S.$78.79 and that such amount has been computed on the actual number of days elapsed (183) divided by 360.

By: CITIBANK, N.A., LONDON.
Agent Bank.
November 3rd, 1980.

JARDINE, MATHESON & CO., LIMITED
HK$500,000,000 7½% convertible subordinated unsecured loan stock 1990

In accordance with the terms and conditions of the trust deed constituting the loan stock and the loan stock certificates, Jardine, Matheson & Co., Limited (Jardines) has determined that on 31st December, 1980, the outstanding loan stock shall be converted into stock units of Jardines at the conversion rate (as defined in the loan stock certificates) then applicable, except to the extent that loan stockholders choose instead to have all or part of their loan stock redeemed in accordance with such terms and conditions.

For the purpose of determining the loan stockholders entitled to receive stock units of Jardines and interest to 31st December, 1980, it is proposed to close the register of the loan stock at close of business on 17th December 1980. The register will not be reopened after this date. Loan stockholders should ensure that any of their loan stock which is not registered in their names or the names of their nominees is lodged for registration before the register is closed.

Loan stockholders will be sent individual notices setting out the terms applicable to the conversion and the procedure for electing redemption.

This announcement appears for information only.

By Order of the Board.
K. W. YOUNG, Company Secretary.

HORNE BROTHERS LIMITED

NOTICE IS HEREBY GIVEN that the Transfer Books of the Company will be closed from the 16th November to 30th November 1980 both days inclusive for the payment of 6 months interest to 30th November 1980 on the 7¼% Unsecured Loan Stock 1995/2000 and the interim dividend of 2.45% on the 7% Cumulative Preference Shares for the half year to 31st August 1980.

By Order of the Board.
R. H. L. BUCKEY,
Secretary.

LOMBARD

Geoffrey's need to make haste

BY SAMUEL BRITTAN

EXPRESSIONS SUCH as "under review," "being looked at," "may be a case for" come trippingly to the tongue of the British Chancellor, Sir Geoffrey Howe. But even by Sir Geoffrey's standards, the number of topics being examined is large. The following is an incomplete list:

1—Cash limits have to be announced by November for the Rate Support Grant. It has already been decided that the wage element will provide for "single figure" percentage increases, in line with the 6 to 10 per cent monetary target set out for 1981-2. The exact numbers and details have to be decided, as well as whether to make one announcement covering local authorities, nationalised industries and central government or whether to stagger them in the usual muddled way.

2—A well-publicised review of public spending as a whole for 1981-82 is taking place. Not so well publicised is the object of the so-called cuts of up to £2bn in volume terms. It is simply to prevent public spending for 1981-82 from exceeding the level already announced in the White Paper last March. The total has been swollen by the recession, which has increased nationalised industry deficits and by the need to finance a package of employment aids.

But is not a larger PSBR permissible if the recession is worse than the Government expects? The Chancellor now accepts this. The hope, however, is to make the adjustment on the revenue side. Ministers want to avoid increasing taxes despite the revenue shortfall flowing from the recession.

3—There is a review of the whole system of public expenditure control, so that the totals about which Ministers argue are in a less funny kind of money and bear more relation to the cash actually spent. This is highly desirable, but could not come into effect before the 1981 spending review at the very earliest.

4—New monetary targets have to be determined under the normal biannual review. The problem here is how much of the overrun in the period of February to September (estimated by Sir Geoffrey at 8 per cent at an annual rate over and above the 7 per cent to 11 per cent target) should be compensated for in the next period to avoid "base drift." Announcements are expected in the third week of November.

5—There is also a review of the mechanics of monetary control, following the post-corset fiasco. The Treasury is interested in a more flexible market influenced system for setting MLR, a more effective bank reserve ratio, new debt instruments and methods of selling them. The Treasury's First Lady (Mrs. Thatcher) has put a time limit on the deliberations, but we will be very lucky to get announced results even by the end of November.

6—The Government is supposed under the Industry Act to publish a new set of short term economic forecasts which it finds intensely embarrassing.

The great danger is that foreign exchange markets will move too quickly. Any day there could be a rush into sterling which would bring the Governor round to Number 10 with a grave face saying that he could not answer for the consequences of keeping MLR at 16 per cent a moment longer. After all, the market knows that quite large drops in interest rates are likely fairly soon. And it is only a fortunate hardening of dollar interest rates which has kept the inflow from getting out of control.

New strategy

But a drop in MLR before the money supply was seen to be under control would indeed be a blow to the credibility of the whole monetary strategy. The urgent need is to bring forward into the next few days the restatement of monetary targets and to combine it with at least the principles of the new control system even if details have to be filled in later.

Indeed the best course would be to take the bull by the horns and put in one document a restatement of the monetary and fiscal strategy, precise public expenditure objectives, and the adjustments to be allowed in the PSBR for recession. Such a document should also contain cash limits and the new economic forecasts. Markets move faster than committees and we cannot rely on the Presidential election providing sufficient of a distraction.

Musicians remain a symphonic 'lump labour force'

THE LIFEBLOOD of the law is clotted with preposterous distinctions, few of which are more preposterous and none more distinguished than the legal differences between a "servant" and an "independent contractor."

The very expressions "servant" and "independent contractor" are more appropriate to the England of the Duchess of Duke Street than to the Great Britain of Sir Harold Wilson and Mrs. Thatcher. Now that those paragons of the age of Pooter, the pantrymaid and the scullerymaid, have gone from upstairs and downstairs to join the aspidistra and the antimacassar in the rubble of history, it is high time that the "servant" and the "independent contractor" were earmarked for speedy consignment among the same lumber in the same limbo.

These distinctions between a "servant" and an "independent contractor" remain important not merely for their basis but, above all, for their consequences.

A "servant" is liable to have his or her tax deducted at source, and, for the purposes of national insurance, is an employed person. An "independent contractor" is wholly responsible for his or her own tax and national insurance.

A "servant" cannot be registered or assessed for value added tax: an "independent contractor" can.

An employer has duties, not only at common law but under statute, to attend to the safety of a "servant." He or she owes no such duties to any "independent contractor."

Third parties can sue the employer for compensation for injuries, loss and damage due to the conduct or misconduct of a "servant" during the course of employment. As a general rule, the employer is not legally liable to any third party for the actions of an "independent contractor" even at a time when he or she is employing the "independent contractor" for his or her benefit.

A "servant" has a prior claim for his or her wages over other ordinary or trade creditors if the company employing him or her is wound up: a company liquidation confers no such advantage, no such priority on an "independent contractor." A "servant" is entitled to the protection and security of the controversial but salutary legislation concerning redundancy and unfair dismissal: the "independent contractor" is not.

The basis of the distinctions has varied from case to case. Sometimes the extent and degree of control exercised by the employer over the employee has been regarded as the decisive factor.

On another occasion, a fourfold test was suggested: "a complex involving (i) control; (ii) ownership of the tools; (iii) chance of profit; (iv) risk of loss."

On yet another occasion, Lord Denning said that the test of being a "servant" depended on "whether a person is part and parcel of the organisation."

In one of his notable judgments, Mr. Justice Cooke, in a case about a part-time market research interviewer, put forward as a general test whether the person was carrying on business on his or her own account.

This test included such matters as "whether the man performing the services provides his own equipment, whether he hires his own helpers, what degree of financial risk he takes, what degree of responsibility for investment and management he has, and whether and how far he has an opportunity of profiting from sound management in the performance of his task."

In a case in 1976, Lord Justice Megaw invoked the assistance of the New Testament in deciding the legal liability of a building company to a labourer hired to work as "a lump labour force." In his judgment he said that "The centurion in St. Matthew's gospel says to the man under him 'Do this, and he doeth it.' The man under him is a servant, not an independent contractor."

A fortnight ago, for the second year running, one of London's main orchestras added its distinctive timbre to the forensic polyphony.

Last year, in *Winfield v London Philharmonic Orchestra Ltd.*, the Employment Appeal Tribunal decided the status of a former full-time member, a distinguished principal oboeist, of that distinguished orchestra.

This year, in *Addison v London Philharmonic Orchestra Ltd.*, the Employment Appeal Tribunal decided the status of four part-time players in that orchestra.

In its decision on Mr. Winfield's status, the tribunal took into account the following facts. During his period of membership of the orchestra, he paid national insurance contributions as a self-employed person and was registered as liable to account for value added tax on the payments he received for his work in the orchestra. Like other full-time members of the orchestra, he was a member of the Musicians' Union and a shareholder in the orchestra.

In its judgment, the tribunal agreed that "it can be very difficult to decide whether a relationship between employer and employee is a contract of service. . . . The question in this case has to be considered not in the normal industrial or commercial context, but in the context of one of the world's finest orchestras composed of some of the world's finest musicians. Making music is an art, and the co-operation required for a performance of Berlioz's Requiem is dissimilar to that required between the manufacturer of concrete and the truck driver who takes the concrete where it is needed."

These pronouncements ignore an incontrovertible fact of the history of conducting — such great exponents of their art as Koussevitzky, Toscanini, and Mengelberg demanded a degree of subservience from orchestral players which no manufacturer of concrete would ever expect from any truck driver.

Nevertheless, the tribunal in its wisdom decided that the picture as a whole "looks to us . . . like a co-operative of distinguished musicians running themselves with self and mutual discipline, and in no sense like a boss and his musician employees."

As a result of this decision the tribunal upheld the argument put forward for the orchestral company that Mr. Winfield was "a free-lance musician whose services were hired by the [company] from time to time on a sessional basis" and was not an employee with any right to be unfairly dismissed.

One wonders whether it really makes good sense, good law or good music for the full-time members of an orchestra which aims and claims to achieve and maintain a "high artistic standard" of "service to the nation" to be declared, described and regarded as freelance musicians hired on a sessional basis.

Neither in its yearbook nor its programmes are all or any members of the orchestra named in the lists of orchestra personnel described as freelance musicians. Nor would any concert-goer listening to any of its performances describe the members of the orchestra taking part in them as each undertaking his or her own business on his or her own account.

Are orchestral players in all or any of the great orchestras of London, one of the world's great centres of music, nothing more—and nothing less—than a symphonic "lump labour force" drawn from a pool of independent sub-contractors? Is this the price orchestral musicians are prepared to pay for the lucrative privilege of the freedom to play commercial television jingles and other nauseating trivia?

As with last year's full-time member, Mr. Winfield, so with this year's part-time players, Mr. Downs, Mr. Addison, Mr. Rycroft and Miss Williams. The tribunal decided that, when playing for the orchestra, each of them remained essentially a freelance musician, pursuing his or her own profession as an instrumentalist, with an individual reputation and carrying on his or her business.

The results may be pleasing not only to orchestral managements, who remain free from the burden of deducting tax and paying national insurance contributions, but also to the Arts Council and local authorities responsible for public subsidies and to commercial firms offering private sponsorship.

But ought not musicians playing regularly in and for an orchestra, whether full-time or part-time, be given a greater degree of security in this employment and full scope to test the grounds or fairness of their dismissal than the law at present allows them so long as they come within the legal category of an independent contractor?

Or do they remain content to play second fiddle not only in the ranks of the orchestra but also in the realm of the law?

THE WEEK IN THE COURTS

BY JUSTINIAN

Velvet Habit for a tricky outing

ON THE corresponding day a year ago at Leicester, when the six winners were returned at an average price of more than 13-1, it proved to be a tricky afternoon for backers.

It looks probable that punters will again not find matters easy.

This time there is an additional race for the Fleckney Maiden Fillies Stake, for it has had to be divided. However, the second division, at 4.10, hardly looks to contain the basis of a "getting-out" bet for anyone in trouble. Two more interesting betting mediums appear to be the opening division of that event, and the Wysall Stakes.

There are few better-bred fillies in training, let alone in action, this afternoon than the Seven Barrows chestnut Velvet Habit. I shall be disappointed if this filly, by Habitat out of that precocious juvenile Red Velvet, cannot get off the mark in the opening division of the Fleckney.

Velvet Habit, one of the last Peter Walwyn two-year-olds, to be ridden by Pat Eddery, stable jockey, shaped with promise on her debut and should prove quick enough to expose the limitations of the more experienced Princess Galicia.

Barry Hills, whose near-120-strong South Bank team is numerically a little superior to that of Seven Barrows (the only other stable of comparable size in Lambourn), will be hoping that Always Sandicliffe can get off the mark in the Wysall Stakes.

This Home Guard filly, for whom Hills has snapped up Willie Carson, showed much-improved form last time out. The patience of her trainer, for whom she is racing for only the fifth time, can be rewarded.

At Lingfield, Major Swallow seems likely to go to post at cramped odds for the Doyen Novices Chase. He may well win but reports of sketchy jumping in his schooling suggest that Cargolux may be a better bet. Cargolux did well to finish second behind The Herb at Fontwell recently.

RACING

BY DOMINIC WIGAN

LEICESTER

1.15—Velvet Habit***
1.45—The Marlestan
2.15—Saulingdale
3.15—Always Sandicliffe**

LINGFIELD

1.00—Cargolux*
1.30—Brown Jock
2.00—Ro's Owen
3.30—Rockbarton

TV/Radio

BBC 1

† Indicates programme in black and white

9.00 am For Schools, Colleges. †12.45 pm News. †1.00 Pebble Mill at One. 1.45 Camberwick Green. 2.01 For Schools, Colleges. 3.15 Songs of Praise. 3.53 News. 3.55 Play School. 4.20 Mighty Mouse. 4.25 Jackanory. 4.40 Jaoa. 5.00 John Craven's Newsround. 5.05 Blue Peter. 5.35 Adventures of Morph.
5.40 News.
5.55 Nationwide.
6.55 Angels.
7.20 Star Trek.
8.10 Panorama.
9.00 News.
9.25 Film: "Law of the Land."
†11.00 Film 80, with Barry Norman.
11.30 The Past at Work.
11.55-12.00 am News.

All Regions as BBC-1 except as follows:

BBC Cymru/Wales—1.45-2.01 pm Pila Pala. 5.55-6.20 Wales Today. 6.55-7.15 Heddiw. 7.15-8.10 To Serve Them All My Days. 11.55 News.

Scotland—11.00-11.20 am For Schools. 12.40-12.45 pm News. 5.55-6.20 Reporting Scotland. 11.30 Cearcall. 12.00 News.

Northern Ireland—3.53-3.55 pm News. 5.55-6.20 Scene Around Six. 6.20-6.55 Land 'n' Larder. †11.59-12.20 am Festival Notebook. 12.20 News.

England—5.55-6.20 Look East (Norwich); Look North (Leeds, Newcastle); Look North West (Manchester); Midlands Today (Birmingham); Nationwide (London and South-East); Points West (Bristol); South Today (Southampton); Spotlight South-West (Plymouth).

BBC 2

10.00 am Good for Business.
10.25 Role of the Nurse.
11.00 Play School.
11.25 Write Away.
2.15 pm Let's Go.
3.00 Make Your Own Furniture.
3.30 Time Out of Mind.
4.15 *Is There Life After School?*
5.40 Harold Lloyd film.
6.05 All Creatures Great and Small.
6.55 Making a Bob or Two.
7.35 News.
7.45 Wainwrights' Law.
8.10 Des O'Connor.
9.00 BBC North Korean Cinema Season: Not The Nine O'Clock News.
9.25 Horizon: Smoking.
10.15 Premiere IV.
10.50 Newsnight.
11.35 Heute Direkt.

LONDON

9.30 am Schools programmes. 12.00 pm We'll Tell You a Story. 12.10 Rainbow. 12.30 Village Action. 1.00 News. 1.20 Thames News. 1.30 Farmhouse Kitchen. 2.00 The Riordans. 2.30 Film: "The Million Pound Note." 4.15 Kidnapped. 4.45 Clapperboard. 5.15 White Light
5.45 News.
6.00 Thames News.
6.35 Crossroads.
7.00 Give Us a Clue.
7.30 Coronation Street.
8.00 In Loving Memory.
8.30 World In Action.
9.00 Film: "The Streetfighter."
10.00 News.
10.30 Film continued.
11.15 New Avengers.
12.15 am Sit Up and Listen with Edward Heath.

All IBA Regions as London except at the following times:

ANGLIA

1.20 pm Anglia News. 1.30 About Britain. 2.00 Farmhouse Kitchen. 2.30 Film "My Cousin Rachel." 5.15 University Challenge. 6.00 About Anglia. 6.30 Survival. 11.15 Teletext Grand Prix. 12.15 Barney Miller. 12.45 The Other Day.

ATV

1.20 pm ATV News. 1.30 About Britain. 2.00 Farmhouse Kitchen. 2.30 Film: "The Man from Colorado." 9.00 Vegas. 10.30 Left, Right and Centre. 11.10 ATV News. 11.15 Danger UXB. 12.15 am Something Different.

BORDER

1.20 pm Border News. 2.30 Film: "Doctor In Love." 5.15 Gambit. 6.00 Lookaround Monday. 6.15 Look Who's Talking. 6.45 Brain of the Border. 11.15 Kes. 12.15 am Border News.

CHANNEL

1.20 pm Channel News. 1.30 About Britain. 2.00 Farmhouse Kitchen. 2.30 Film: "Anastasia." 5.15 University Challenge. 6.00 Channel News. 6.10 Then Came Bronson. 7.00 Give Us A Clue. 10.28 Channel News. 10.34 Film continues. 11.15 Crasharama. 11.45 George Hamilton IV. 12.10 am Commentaires et Previsions Meterologiques.

GRAMPIAN

1.20 pm North News. 1.30 About Britain. 2.00 Farmhouse Kitchen. 2.30 Film: "Holiday Camp." 5.15 Gambit. 6.00 North Tonight. 6.35 Out Of Town. 11.15 The Palace Presents, Variety: 12.10 am Reflections. 12.16 North Headlines.

GRANADA

1.20 pm Granada Reports. 1.30 About Britain. 2.00 Farmhouse Kitchen. 2.30 Film: "The Amorous Prawn." 5.15 Alright Now! 6.00 Granada Reports. 11.15 Superstar Profile. 11.45 Survival.

HTV

1.20 pm HTV News. 1.30 About Britain. 2.00 Farmhouse Kitchen. 2.30 Film: "Now You See It Now You Don't." 5.15 Gambit. 6.00 Report West. 10.28 HTV News. 11.15 Interpreti: Sky.

HTV Cymru/Wales—As HTV West except: 10.05-10.20 am About Wales. 10.40-11.00 German Programme. 11.05-11.20 Am Gymru. 12.00-12.10 pm Flalemélem. 4.45-5.15 Sêl. 6.00-6.25 Y Dydd. 6.25-7.00 Report Wales. 6.30-9.00 Yr Wythnos.

SCOTTISH

1.30 pm About Britain. 2.00 Farmhouse Kitchen. 2.30 Film: "Stolen Hours." 5.15 Teatime Tales. 5.20 Crossroads. 6.00 Scotland Today. 6.40 Crime Desk. 9.00 Vegas. 10.30 About Gaelic. 11.00 Three's Company. 11.30 Our Little Town. 12.00 Barney Miller. 12.30 am Late Call.

SOUTHERN

1.20 pm Southern News. 1.30 About Britain. 2.00 Houseparty. 2.25 Emily, Emily. 3.45 Farmhouse Kitchen. 5.15 Different Strokes. 6.00 Day by Day. 9.00 Vegas. 10.35 Afloat. 11.05 WKRP in Cincinnati. 11.30 Pro-Celebrity Snooker. 12.15 am Godsell.

TYNE TEES

1.20 pm North-East News. Lookaround. 1.30 About Britain. 2.00 Farmhouse Kitchen. 2.30 Film: "The October Man." 5.15 Black Beauty. 6.00 North-East News. 6.02 Double Top. 6.30 Northern Life. 9.00 Vegas. 10.32 Northern Report. 11.00 Kes. 12.01 am Do It Like.

ULSTER

1.20 pm Lunchtime. 1.30 Farmhouse Kitchen. 2.30 Film: "The Card." 4.13 Ulster News. 5.15 Gambit. 6.00 Good Evening Ulster. 9.00 Paris. 10.30 87 This I Live. 11.00 Benson. 12.01 am Bedtime.

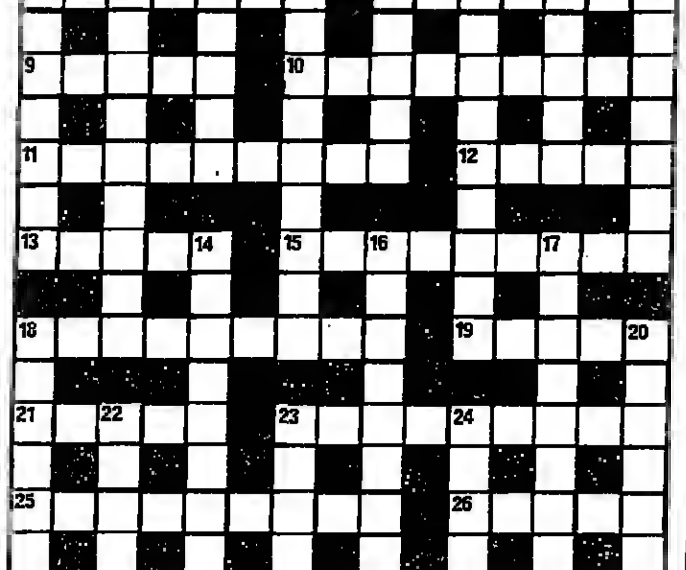
WESTWARD

1.20 pm Westward News. 1.30 About Britain. 2.00 Farmhouse Kitchen. 2.30 Film: "Anastasia." 4.12 Gus Honeybun's Birthdays. 5.15 University Challenge. 6.00 Westward Diary. 11.15 Crasharama. 11.45 George Hamilton IV. 12.10 am Faith for Life. 12.15 West Country Weather, shipping forecast.

YORKSHIRE

1.20 pm Calendar News. 1.30 About Britain. 2.00 Farmhouse Kitchen. 12.30 Film: "Bachelor Knight." 5.15 Gambit. 6.00 Calendar. 6.30 Mind Your Language. 11.15 They All Play Ragtime.

F.T. CROSSWORD PUZZLE No. 4,416



ACROSS

1 Counterpart to party outfit (4, 3)
5 Discover bulb burning (5, 2)
9 Article to pit against chemical compound (5)
10 Demolished what was written under a dictatorship (5, 4)
11 Aircraft in stratosphere is extravagant (4-5)
12 Can for instance return colour a bit (5)
13 Welsh town given tidy head start (5)
15 There's no sense in such communication (9)
18 Sprinkler to spray perfume (4, 5)
19 Reduce its brilliance when backward and shy (5)
21 Doctor leads island race round words on crest (5)
23 A hasty broadcaster might degenerate (3, 2, 4)
25 Extended a great deal of ability to look ahead (4, 5)
26 Act like a cut-throat operator (5)
27 Meant negative indeed (7)
28 Festival Pole found oriental (7)

DOWN

1 Meal a prominent feature in seminar (5-2)
2 Gluey substance is in mirror (9)
3 Girl upset footballers in association with bundle (5)
4 Bird superior to stronghold at retaliation (3, 3, 3)
5 Find satisfactory new beginning to compare (5)
6 A regular snooker player is likely to have been ruined (4, 2, 3)
7 Spike gets tired first over cape (5)
8 Home for women called to order (7)
14 Please explain mechanism of conventional greeting (3, 4, 2)
16 Visual aid is gentler to adjust (9)
17 Ill-feeling over tea-break moderate (9)
18 Found out how strange blockhead showed the way (7)
20 Cheque that bounced has gone astray in resentment (7)
22 Saw part of joint (5)
23 Outfit one would find stiff (5)
24 Nothing like one's place of rest (5)

The solution to last Saturday's prize puzzle will be published with names of winners next Saturday.

Radio Wavelengths

1	1053kHz/285m 1089kHz/275m	3	1215kHz/247m & 90-92.5vhf stereo		BBC Radio London 1458kHz, 206m & 94.9vhf
2	693kHz/433m 909kHz/330m & 88-91vhf stereo	4	200kHz/1500m & 92-95vhf		Capital Radio: 1548kHz, 194m & 95.8vhf; London Broadcasting: 1151kHz, 261m & 97.3vhf

RADIO 1

(S) Stereophonic broadcast
‡Medium wave

5.00 am As Radio 2. 7.00 Dave Lee Travis. 9.32 Andy Peebles. 12.30 pm Newsbeat. 12.45 Paul Burnett and Mike Read. 2.32 Simon Bates. 4.32 Peter Powell. 5.30 Newsbeat. 5.31 Stayin' Alive. 7.31 Mike Read. 10.02 John Peel (S).

RADIO 2

5.00 am News. 5.03 Ray Moore (S). 6.15 Pause for Thought. 7.32 Terry Wogan (S). 8.27 Racing. 8.45 Pause for Thought. 9.03 Favourite Five Singles. 10.03 Susannah Simons (S). 12.03 pm David Hamilton (S). 1.45 Sports. 2.03 Ed Stewart (S). 2.45, 3.45 Sports. 4.03 Much More Music (S). 4.45, 5.45 Sports. 6.03 John Dunn (S). 6.45 Sports. 8.02 Folk on 2: The Spinners (S). 9.02 Humphrey Lyttelton (S). 9.55 Sports. 10.02 Free Spin. 10.30 Star Sound. 11.02 Brian Matthew. 11.55 News. 2.02-5.00 am You and the Night and the Music (S).

RADIO 3

6.55 am Weather. 7.00 News. 7.05 Overture (S). 8.00 News. 8.05 Morning Concert (S). 9.00 News. 9.05 This Week's Composer: G. P. Telemann (S). 9.45 Cello Sonatas (S). 11.10 Birmingham Symphony Orchestra concert (S). 1.00 pm News. 1.05 BBC Lunchtime Concert (S). 2.05 Matinee Musicale concert (S). 3.05 Anthony Milner (S). 3.30 New Records (S). 4.55 News. 5.00 Mainly for Pleasure (S). 7.00 Strauss (S). 7.30 English Chamber Orchestra concert (S). 8.10 Sequences: poetry. 8.30 English Chamber Orchestra concert (S). 9.15 Music In Our Time (S). 10.15 Short story. 10.30 Jazz (S). 11.00 News. 11.05-11.15 Charles Griffes (S).

RADIO 4

6.00 am News. 6.10 Farming. 6.25 Shipping forecast. 6.30 Today. 8.35 The Week on 4. 8.45 BBC Sound Archives. 9.00 News. 9.05 Start the Week with Richard Baker. 10.00 News. 10.02 Money Box. 10.30 Service. 10.45 Story Time. 11.00 News. 11.05 You, the Jury. 11.50 Poetry Please! 12.00 News. 12.02 pm You and Yours. 12.27 Lord Peter Wimsey. 12.55 Weather. 1.00 World at One. 1.40 The Archers. 1.55 Shipping forecast. 2.00 News. 2.02 Woman's Hour. 3.00 News. 3.02 Afternoon Theatre. 4.35 Askey's Hall of Fame Norman Evans. 4.45 Short Story. 5.00 PM: news magazine. 5.50 Shipping forecast. 5.55 Weather. 6.00 News. 6.30 Not a Penny More, Not a Penny Less (S). 7.00 News. 7.05 The Archers. 7.20 Quote . . . Unquote (S). 7.50 Monday Play (S). 9.05 Kidnapped! 9.30 Kaleidoscope. 9.59 Weather. 10.00 The World Tonight. News. 10.30 Science Now. 11.00 Book at Bedtime. 11.15 The Financial World Tonight. 11.30 Today in Parliament. 11.59 News. 12.15-12.23 am Shipping, inshore forecasts.

BBC Radio London

5.00 am As Radio 2. 6.30 Rush Hour. 9.15 Entertainment in Town. 10.03 Robbie Vincent Telephone Programme. 1.03 pm London Live. 3.15 Swap Shop. 4.30 News. 5.35 Music on the Move. 7.03 Black Londoners. 8.00 Question Time, House of Commons. 9.00-5.00 am Join Radio 2.

London Broadcasting

6.00 am AM—Bob Holness and Douglas Cameron. 10.00 Jonny Lacey. 12.00, 2.00, 4.00, 6.00 LBC Reports. 8.00 After Eight Special—Carol Allen. 9.00 Nightline. 10.00 LBC Reports. 1.00 am Night Extra. 3.30 LBC Cinema. 4.00 After Eight Sunday. 5.00 Morning Music.

Capital Radio

2.00 am Duncan Johnson's Night Flight (S). 6.00 Mike Smith's Breakfast Show (S). 9.00 Michael Aspel (S). 12.00 Graham Dene (S). 3.00 pm Roger Scott (S). 7.00 London Tonight with Bryan Wolfe (S). 9.00 Alan Freeman (S). 1.00 Tony Myatt's Late Show (S). 2.00 am Duncan Johnson's Night Flight (S).

THE ARTS

The Other Place

Hansel and Gretel

by B. A. YOUNG

David Rudkin's version of the familiar tale is even more brutal than that of the Grimm Brothers, but in the Grimm Brothers' own manner; that is to say, the most appalling cruelities are presented for amusement. I don't think Mr. Rudkin hopes for the amusement of children, however, like the Grimms; his play is peppered with four lettered words and examples of bad behaviour. This is unexpected from the author of *Ashes*, that agonising account of a childless couples' efforts to have a family. I'd like to believe that Mr. Rudkin's heart wasn't in it. That would account for the many bad jokes.

The story is told roughly as we know it. Hansel and Gretel (Allan Hendriks and Janine Duvitski) have been half-purposely lost in the forest by their indifferent parents, and the Witch catches them by using drugged sweets as bait. Hansel is popped into a cage to be fattened up for the table; Gretel, her ankles chained together, is employed as a domestic. They act throughout like the nastiest children. When the Sandman (Edwin Richfield) releases Hansel, he goes on a mindless orgy of destruction as if he were on a football train. Gretel sucks up to the Witch and is treated as a daughter until she gets a chance to push her into the microwave oven meant for Hansel.

Brenda Bruce's Witch is at heart an elegant lady who wears the traditional black kit because they are the fashion, but at other times can appear as homely Granny Daw (with an appropriate beak elongating her nose) or even as Lady Daw, taking tea on the lawn or avidly addressing the local school about the Lady Daw Crusade. When she is killed, her property passes to the childrens' stepmother (Barbara Kingborn, who is also the Witch's gruesome daughter, Olive).

Children, in fiction at any rate, always resent their stepmothers, and children who have met witches won't be slow in connecting the two.

The father (Hugh Ross) is another matter. He, at least, makes an effort to find his lost offspring; yet when they are home again, he takes an appalled look as they settle down to their childish pursuits and exclaims: "Who are these people in my house?"

Wigmore Hall

Adrienne Csengery

by DAVID MURRAY

This Hungarian soprano has been much admired at Glyndebourne for her Susanna and Zerlina; her fascinating recital on Friday revealed other aspects of her talent. Of these, the least by far is her command of English. It is much more foreign than she realises, or she would not have chosen to fill the first half of her programme with Haydn's dozen English canzonettas. She delivered them with an individual sort of elegance, unexpected rhetorical effects and a tendency to float sharp, but the exotic accents of her words were a hefty distraction.

Safely back in Hungarian, Miss Csengery addressed herself to the voice-and-piano version of Bartok's Village Songs in a variety of exuberant tones—liquid, raucous, darkly earthy. She brought the cycle to vivid folk-rustic life, with temperate support from Walter Moore, her cool, polished accompanist. His Haydn had been far more idiomatically committed, and he sounded happier again with the mechanical skirlings of Stravinsky's *Pribaoutki* songs. These the singer took up and brandished in full-blooded Berberian style, with infectious relish.

Miss Csengery found new voices again for Jozsef Bakky's remarkable little duologue for one, "Overheard on a Saltmarsh." Unpromising though this must sound, it consists of a goblin's groaning pleas to a nymph for her green glass beads, and her gurgling refusals. The piece is ingeniously devised, not at all hit-or-miss, and its effect is as much musical as quirky. It sent Miss Csengery plummetting and soaring between Alberich-depths and her silvery upper register, which contains some hauntingly beautiful notes. No doubt that seems an odd way to put it; but the whole Csengery voice turns out to harbour odder riches than could have been guessed at Glyndebourne (and sheer power: at points the Wigmore Hall barely contained it). I fancy that we shall hear very interesting things from this singer.

Elizabeth Hall

The Child from the Sea

Conducted by Steuart Bedford for the first of their four visits to the Elizabeth Hall this season, on Friday evening the Northern Sinfonia brought to London a recent piece by Stephen Oliver. *The Child from the Sea* for treble solo, chorus and orchestra was commissioned as part of the celebrations for the 900th anniversary of the foundation of Newcastle-upon-Tyne earlier this year. The programme note for the work was brief to the point of obscurity; Oliver's warning that the work is not to be taken as an allegory but as a treatment of "the doubts and dangers that attend any great undertaking" did not help to shed light.

The text is the composer's own. It relates a strange little tale of a king and a child who appears from the sea to take the king away from his people—a flimsy narrative that would require the most imaginative and careful treatment to give it convincing flesh. Oliver allots the bulk of the story to the chorus, leaving the treble solo to the vague utterances of the child. The feeling of the work as a whole is of an artifice intended to obscure, as if profundity would be naturally read into anything which cannot be immediately understood.

Had the chorus and orchestra been provided with grateful musical images the shortcomings of the text would not seem so intrusive. But the Northern Sinfonia chorus could barely cope with the intricate working of the chorus writing; in physical numbers also, chorus and orchestra lacked the body of sound necessary to make something positive out of Oliver's gestures. The music is by turns faceless and suggestive of a tired, middle-aged brand of English music; the treble solos predictably recall Britten, though the soloist (on this occasion the very secure Mark Cresswell) is not given much encouragement.

As an occasional piece, written to fulfil a specific purpose, it may have worked well; but in less sympathetic surroundings and forced to be self-sufficient *The Child from the Sea* does not begin to convince.

ANDREW CLEMENTS

The first phase of Portsmouth Polytechnic Library by Ahrends Burton and Koralek

Architecture

From brief to building

by COLIN AMERY

It is often a puzzle for the layman to discover exactly how buildings end up looking the way they do. The Heinz Gallery of the Royal Institute of British Architects is a kind of shop window where architects can show their wares to the public. Of course, the actual buildings are the best and often the worst advertisements for the architect but it is fascinating to attempt to understand the creative process that produces one building rather than another.

An exhibition that has just opened at the Heinz Gallery on the work of Ahrends Burton and Koralek certainly lays the creative process on the line. Peter Ahrends, Richard Burton and Paul Koralek studied architecture together from 1951 to 1956; they formed a practice in 1961 and this show is a record of 20 years work.

Fine drawings and beautiful models show a number of buildings and projects and in almost every case early sketches and illustrations of the "briefing process" indicate the early gropings towards the final form. The presentation of the exhibition is seductive and one quality is evident throughout—there is a recognition that architecture is an art, however simple and functional the brief.

This quality shows in the design for the new Post Office Headquarters on the sensitive St. Martin's-le-Grand site north of St. Paul's Cathedral. Ostensibly just another office building it is streets ahead of the average City block. A filigree screen of tubular aluminium gives depth to the walls which follow an elegant curve and frame the Cathedral beautifully. Sadly, this design is now not going to be built, the Post Office has opted for "economy" and will no doubt produce a building of no real distinction.

The building that gave birth to this practice was the Library at Trinity College Dublin. A dramatic rendering of the late style of Le Corbusier it has its enemies as well as its admirers. It has a ruthless rhetoric which extends as far as the concrete furniture—looked at nearly 20 years after it was designed, is it a period piece? The firm has grown more rational since those heady days and their latest library buildings for Redcar, Maidenhead, and the Polytechnic at Portsmouth are vindications of a design approach that is a direct response to brief, site and materials. All three libraries seem to me to have a clarity about their design which is both practical and beautiful.

Another controversial building by this firm is the residential range at Keble College Oxford. A long snake of rooms that ends up in a coil that curls in on itself—it is a brave challenge to Butterfield's Fair Isle patterned brickwork. Yellow brick blank walls are presented to the world while inside the college all is raked glazing and startling reflections. Like William Butterfield's achievement at Keble there is nothing commonplace about this bold building; it hits hard and strong.

A house in the heart of the old city of Jerusalem is another striking example of this firm's design integrity. It grows out of the old walls with tremendous distinction and is convincingly at home in a sensative historic area. This building represents all that the firm of ABK stands for; care for detail, human scale, response to a sensitive site, and a rather austere aesthetic.

Go to the Heinz Gallery to see how good architects work, it is a very distinguished exhibition. Their clients range from librarians to John Lewis and they have all been well served.

The Heinz Gallery is at 21 Portman Square, London W1. (Mon.-Fri. 11.00-5.00, Sat. 10.00-1.00).

New Theatre, Oxford

The Rake's Progress

by DAVID MURRAY

The Glyndebourne Touring Company has inherited, or at least borrowed, its parent company's staging of Stravinsky's opera, and presented it in Oxford last week. Pleasant to discover that David Hockney's brilliant cross-hatched sets travel so well (with John Cox's production reproduced for this tour by Julian Hope); a little disappointing to find a good young cast having such difficulty with projecting Auden's text in his home territory. In fact the slightly cavernous New Theatre had many unfilled seats, which cannot have helped; even the excellent Bournemouth Sinfonietta in the pit sounded as if at a great distance.

After the interval, the audience warmed to the auction scene, and thereafter the singers took heart. Peter Jeffes' frail Rake, whose words I could scarcely distinguish save in recitative, proved most effectively at home *in extremis*, though over-Shadowed by his diabolical partner — John Pringle, making his British operatic debut with éclat. If this wasn't an especially subtle Nick Shadow, it was a strong, saturnine sketch, founded upon solid tone and alert attack, brimming with dramatic confidence. A comparable grasp of the text would have improved Helen Walker's Anne Trulove, pleasantly sung but under-detailed.

For Mary King's sprightly Baba the Turk, nothing but praise: vigorous comedy on the right side of circus clowning, decent accuracy with her taxing vocal line, and invaluable brio. Roger Bryson sounded well as Trulove, but a want of paternal authority was compounded by his looking like a tall schoolboy playing Old Gobbo. Stephen Barlow's sympathetic exposition of the score, sound in detail and properly weighty for the blackest moments, was almost too suave for the circumstances—a little more strident energy might have brought the performance to life sooner. The eventual resuscitation was due not least to a visitor from the original Glyndebourne cast, John Fryatt's faultless Auctioneer.

Two RSC plays at Warehouse

The RSC is to stage two new plays at The Warehouse: *The Irish Play* by Ron Hutchinson, which opens on November 18 (performances from November 12) and *Television Times* by Peter Prince, which opens on December 9 (performances from December 3).

The Irish Play, a political comedy set in an Irish club in the Midlands, stars John Cowley, Jim Fitzgerald and P. G. Stevens. It is directed by Barry Kyle and designed by Bob Crowley.

Television Times is a comedy which charts the uneven progress of a group of TV professionals working on a major drama series. This is Peter Prince's first play for the RSC. It is also director Stephen Frears' first RSC production.

Cottesloe

The Crucible

by B. A. YOUNG

I have not been so profoundly moved for a long time as I was in the third act of this tremendous play, certainly the best Arthur Miller wrote, possibly the best American play of this century. Miller winds up the tension with remarkable skill in the court bearing to which John Proctor has come to clear his wife of the accusation of witchcraft. First there is Proctor's difficult decision, whether to confess to adultery with Abigail Williams, chief of young girls who are marking down all the women in Salem as witches. If he confesses, there is a chance that Abigail will be recognised as a liar.

He *does* confess, in his wife's presence; but the court needs more proof and Proctor brings a signed deposition from his servant Mary Warren, who has been with the band but has left them. She tells the judge the accusations were all lies; but as she does so, the girls turn on her and pretend that she is threatening them with witchcraft, and Mary recants.

The play is taut and exciting from the start, where we first learn of the children's "sport," dancing naked in the woods with a Barbadian slave woman. Then attention is focused more nearly on one couple, the decent Proctors, who become involved when Abigail tries to involve Proctor's wife out of jealousy.

Bill Bryden's production makes the most of the succession of climaxes that follow one another with increasing force. The excellent company did not seem as good as it was last night until the first act was nearly over; I was thrown by the assorted accents, none of them from Massachusetts, until the magic of the words held me completely. The childish guilt of Abigail (Caroline Embling) and her friends smoulders up into genuine wickedness until in the court scene they are veritable demons in their clever devices to entrap their enemies. Mary (Valerie Whittington) veers frighteningly between little-girl innocence and experienced wickedness.

Mark McManus is first-class as Proctor, at first the wholly upright man, prepared to defy even the Deputy Governor (a marvellous performance by *Tony Haygarth*, his authority tinged every now and then with a hint of sympathy) in the pursuit of justice for his wife and the other accused women, victims of the children's game that they can't back out of.

Dinah Stabb plays his wife, the archetype of the wrongly marked witch, faithful to her husband even after his confession of adultery and his false confession of dealing with the devil, which he withdraws when he realises all the shame it must bring. There is fine work too by Dave Hill and James Grant as the rival clergy, J. G. Devlin as the litigious old Corey, and others. The admirable set in plain board, instantly and simply evocative from scene to scene, is the work of Hayden Griffin.

Festival d'Automne, Paris

The Oresteia

by MICHAEL COVENEY

The centre-piece of this year's theatre programme at the Paris Festival is undoubtedly Peter Stein's production of the Aeschylus trilogy, visiting from the Schaubühne Ufer in West Berlin. There are more performances this week in the Maison de la Culture in the grim concrete suburb of Bobigny before the show returns to Berlin. On Saturday, the trilogy was given complete, starting at 2 pm and finishing at 11.30 pm. The plays themselves are very short. Peter Stein's production of them is very long. But absolutely riveting.

The pervasive slow-motion atmosphere in a specially contrived large black box arena—the stalls have been removed—with telling use made of long diagonal entrances and stunning half light is instantly recognisable to those familiar with the work of Robert Wilson. Apart from that, the performance is vocally choreographed in a style that has no fears of the demands of Greek tragedy. In the second play, *The Choephori*, Electra's mourning call is spread through a female chorus that slithers slowly on to the stage beating their breasts, rending their clothes and railing against the sky. The ululation builds to a tremendous climax before Electra and Orestes pummel Agamemnon's huge black tomb with their fists.

The choral speeches themselves are a marvellous mixture of conversational inflection, solo comment and corporate incantation. The same is true of the old male chorus line in the *Agamemnon*. Here we have a bunch of village elders in battered hats, leaning incredulously on their sticks while the tragedy unfolds at a higher level in the House of Atreus. Every now and again they break away into a conspiratorial huddle. Mr. Stein solves brilliantly the problem of how to make the Chorus at once observant and participatory. When Agamemnon returns from Troy, they lay out a railway line along the same diagonal used by Orestes and, on a flying contraption, Athene in *The Eumenides*. They greet him with an ominous, close-harmony chant. Perhaps they were expecting Attila the Hun.

Strict technical control also characterises the solo expressions of grief and foreboding. Cassandra (Elke Petri) produces an astounding ululatory yelp while still under white captive wraps. As the Chorus shake their collective head at the prophecies, she breaks into a strangulated cry, loosens her hair and strips to a white shift. It is a marvellous sequence, culminating in a quiet acceptance of defeat as she crosses the fatal threshold. On hearing Agamemnon's death cry, two of the old chorus boys keel over in dismay.

The inevitability of the tragedies is graphically done by the emergence from the house, at the end of both *Agamemnon* and *The Choephori*, of a chaotic platform. First, Clytemnestra stands astride her husband and his lover. Second, Orestes, brandishing an olive branch and a sword, displays his mother and *her* lover (Aegisthus). On both occasions blood drips to the floor like rain from a gutter.

The performance of the brilliant Edith Clever, as Clytemnestra is astonishing. Framed in the palace doorway, her presence is beautifully engineered in the overall architectural scheme. When Agamemnon eventually goes inside, she breaks momentarily free to thank Zeus in a crouched position. In the second play, she shuffles on, weak with weariness. Everything in her voice and gesture, both slinky and doomed, tells you that years have passed and the house stinks with sadness. One forlorn attendant half-hides in the doorway when a disguised Orestes announces that Orestes is dead. First she sinks to her knees in quiet grief. Later, she patrols the palace rubbing her hands along the wall. Resisting death at her son's hands, she bears her left bosom. For minutes on end the blade balances on her nipple. The anticipation is unbearable. For us, and for the Chorus. When Agamemnon dies, the chorus explodes in a communal noise of orgasm. The abruptness with which they close ranks and line a side wall is positively post-coital.

The biggest problem for Stein is obviously in the third play. The transformation of the Furies—who resemble, just as the Priestess at Apollo's shrine says they do (in the Penguin translation), wingless and utterly loathsome Harpies—into a bunch of appeased spirits after Athene's vote in favour of Orestes has gone against them, is slightly distorted. There is no final Panathenaic procession. The male Chorus, now hatless and suddenly modern, robe the faceless black *beetles* in the purple smocks laid out by Clytemnestra for Agamemnon's homecoming. They are then enthroned against their will and wrapped up like so many Mummies. As the democratic process continues — the men continue to cast votes while Orestes (Udo Samel) passes through the audience gratefully shaking hands—the ululation becomes tired and inaudible. Athenian society has reasserted the male prerogative and Stein has added his own grim comment. But he has scuppered the pragmatic optimism of the text.

That said, his achievement is nonetheless massive. Earlier this year in London we saw John Barton's Euripidean epic, *The Greeks*, in which both the Aeschylus *Agamemnon* and the Euripides *Orestes* (which covers the same territory as *The Coephori*) were part of a curiously modern view of the Greek myths through the satiric and irreverent eyes of the later writer. Stein has met the challenge of Greek tragedy in a head-on collision and demonstrates how these great plays can live for a contemporary audience. One can only conclude that whoever does get round to doing *The Oresteia* at the National Theatre has a very hard act to follow. The entire Berlin company is in top form and the performance of Edith Clever establishes her, in my eyes, as one of the leading actresses of the day.

London Festival Ballet forms fund-raising association

Faced with a deficit of over £100,000 in the past financial year, the London Festival Ballet has formed a new fund-raising association, under Lord Chalfont.

"Lord Chalfont already has given us magnificent help with our tour of China earlier this year. Having saved the tour from being an unmitigated disaster he has been encouraged to go on seeking financial help." Mr. Gerry Weiss, Festival Ballet's chairman said.

Next season the company will dance at the Coliseum three times. Immediately after the spring season of *Romeo and Juliet*, *Giselle* and two triple-bills, it will join forces with the English National Opera in a triple bill of Bela Bartok's three stage works.

In April ENO will revive his opera, *Duke Bluebeard's Castle*, and the ballet company will mount new productions of *The Wooden Prince*, and *The Miraculous Mandarin*. This ballet is being sponsored by Blessingwell Ltd.

RUGBY BY PETER ROBBINS

A game to match the occasion

THERE IS no greater rivalry between rugby-playing nations than that between Wales and New Zealand. The sport is such an integral part of the heritage of each country that it is all too easy to see why any match between the two is more than just a game.

For the Welsh, rugby football is an expression of national identity and of Welshness itself. It is on a par with their enthusiasm for education and quite often has the same beneficial results. In New Zealand one suspects that the game is a symbol of national virility. Since neither side has developed the habit of losing too many matches, any encounter between them is a special occasion.

Such firm attitudes may lead to the prize being greater than the game itself but on Saturday in Cardiff we were privileged to watch a superb All Black team dismember Wales with as fine a display of rugby as one could hope to see. New Zealand walked it 23-3 but the margin could so easily have been greater had Rollerson been in anything like kicking form.

The most important thing however, was that the match healed the scars of two years ago. Although Wales may mourn this particular loss in their centenary year, the game nevertheless served some useful purpose.

First, it set in perspective the standard of rugby in the UK, for here was the might of Wales being made to look second-rate by New Zealand. Second, it indicated to the Welsh selectors a series of weaknesses which perhaps in the European context are not so severe.

So complete was the All Black performance that it was hard to understand how they had lost to Australia in the summer. The key may be that Mourie was not on that tour. On this visit to Wales, he displayed extraordinary powers of leadership and diplomacy, not to mention a remarkable level of performance.

The preparation has also been thorough, and one of the big differences between the two sides on Saturday was in sheer fitness. The set scrum became almost an irrelevance to the pattern of the game because Mourie, Mexted and Shaw were everywhere and Ringer, Squire (before he retired hurt) and Williams nowhere.

To see a back row play with such harmony was a joy for the connoisseur. Shaw has developed into a fearsome flanker in the space of a fortnight, in the same way that Higginson in the second row has become a true international. He and Reid, the hooker, were incredibly quick around the field, and when Reid scored the last try he had sprinted fully 60 yards to get to Wilson. That was the measure of the mental and physical difference between the two sides and was possible because the All Blacks controlled the forward play throughout the game.

True, Martin had some first-half line-out success, but it was less a game of static set pieces than one of movement, with the All Blacks smuggling the ball cleverly, going down on it quickly, and then moving forward again. Haden was monumental in such work, but it was the skills of a highly trained unit, rather than individuals, which stood out.

So Loveridge and Allen had several options, which they both used. Both attacked the narrow side with breaks and kicks, and Allen in particular kicked well out of defence. Welsh hearts were in mouths whenever the ball went to Elgan Rees.

Robertson and Osborne complemented each other perfectly in the centre, and when Wales did recapture some of the old magic in the second half Osborne picked off the attackers with wonderful tackling. That good defensive work also produced some astonishing All Black counter-attacks, too sudden for Wales to deal with.

After the glories of the 1970s, even Wales now faces a period of rehabilitation. The original choice of Quinnell and Wheel in the second row seemed curious and whereas Williams, Phillips and Price were a match for the All Blacks in the set scrum, it was not uncommon for the All Blacks to outnumber the Welsh at the loose ball in a ratio of four to one.

Further, the Welsh defence at the fringes of the rucks and mauls was brittle; but the most depressing feature from Wales's point of view was the lack of support in the back row when someone did make a break.

National pride was salvaged by some remarkable tackling from JPR, Ackerman and Holmes.

SOCCER BY TREVOR BAILEY

On the ball ... ten years too late

THE RECENT two-day seminar of the 92 Football League chairmen that discussed, and recommended treatment for some of the many problems besetting the game was a step in the right direction—but it should have taken place at least a decade ago, before the situation had been allowed to deteriorate quite so badly.

Transfer fees

Current gross aggregate attendance figures are not only the lowest since the war, but are currently dropping by some 50,000 per week, which is highly disturbing. Some of the reasons for the enormous decline in gates since the halcyon days of the late 1940s and early 1950s, like changes in national social habits and the advent of television, were unavoidable, while the present economic crisis and increased admission charges have not helped.

But professional football itself is largely to blame for hysterical transfer fees, unrealistic wages, inadequate facilities, indifferent management, poor book-keeping, an over-crowded fixture list, too many matches that lack inspiration and entertainment and complacency combined with a refusal by directors to accept the fact that some of the changes required could mean the end of their own club in its present form. The game has also taken too long to climb aboard the sponsorship bandwagon.

It is intended that recent recommendations will be made law at an extraordinary general meeting of the League in the New Year. Few will disagree that the season should open with a flourish at the start of September and finish at the end of May, the extension of the half-time interval to 15 minutes. Although the new requirement that half the transfer fee must be paid within a week, and the remainder within 12 months, is an improvement, it does not solve inflationary transfer fees.

All changes to rules governing a game or competition are invariably well-intentioned, but the outcome is seldom quite as satisfactory as anticipated, the lbw law in cricket providing a classic example. The idea of three points for a win instead of two is to create a more positive approach and to stop teams away from home setting out with the deliberate policy of keeping their goal intact and settling for a draw. The danger is that the increased rewards will encourage a side to sit back on a one-goal lead even more than at present. (If more goals were considered a prime objective, an increase in the width of the posts would seem the most simple solution.)

Potential

The appeal of Sunday matches is obvious, because there is greater crowd potential than at any other time in the week. Less enthusiastic will obviously be those living close to grounds. It is bad enough having to suffer the hooligan element which does so much to disfigure football on a Saturday afternoon, let alone having it descend on Sunday lunch. In addition, games on a Friday evening, Saturday afternoon and Sunday would also affect the appeal of the pools.

Plans to improve the image of the game include making the professional foul a sending-off offence, a move that could run into difficulties through different interpretations on the part of referees. The deliberate trip outside the box is an obvious example, but what about a deliberate hands to prevent a certain goal?

Television did not prove such an explosive issue at the chairmen's meeting, despite claims that soccer was being ruined by over exposure and that there was a need to increase fees. Some of the big clubs complained, understandably, that they do not receive enough, but at the other end of the scale the £25,000 paid out to all 92 sides is a godsend to many in the Third and Fourth Division. There is also the question of the refusal of the television companies to allow advertising on shirts.

If this was permitted, would some of the more famous teams be anxious to be televised more often so as to increase the charge to the sponsor? This is plainly a matter for discussion when the present contract ends in 1983, but football, like it or not, must learn to live with the box, and to capitalise on the good things it can offer.

FINANCIAL TIMES
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Telegrams: Finantimo, London PS4. Telex: 8954871
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Monday November 3 1980

A poor choice for America

WHEN the American electorate goes to the polls to elect its President, the rest of the world holds its breath. For better or for worse, the American President remains the most powerful political leader in the western world, and the choice made by American voters is likely to have repercussions which go far beyond the frontiers of the United States.

In this case, their choice is particularly difficult. As has been evident from the unusually high proportion of "*don't knows*" in the public opinion polls, the American voters have had a hard time making up their minds between Jimmy Carter and Ronald Reagan. It is equally difficult for the rest of the world to make a confident prediction about which of the two main rivals would be likely to make a better fist of the job. There is widespread anxiety in America and elsewhere that perhaps neither would do it especially well.

Impression

Jimmy Carter's record in the White House is not particularly impressive. He has some important achievements to his credit: the courageous de-control of gas and oil prices, the Panama Treaty, and (with reservations) the Camp David agreement between Egypt and Israel. But too often he has given the impression of indecisiveness and inconstancy, and some people accuse him of incompetence.

Governor Reagan's competence is so far untested, since he has so little experience in national let alone international affairs. He has tended to sound more decisive than Mr. Carter, but too often that decisiveness has appeared to be founded on simple-mindedness and ignorance. As the campaign has gone on, his one-word answers have tended to be more qualified. Some people believe that, provided he secured and depended on first-rate advisers, his tendency to simplify might be preferable to Mr. Carter's excessive interest to detail.

Whoever wins the race will be facing an extremely taxing period in office. In response to the Soviet invasion of Afghanistan, both of the chief candidates have laid considerable stress on the priority of making America stronger in military terms; opinions may differ on whether such a reaction is enough, though it is obviously explicable in psychological and domestic political terms. The danger is that, once the electioneering is out of the way, the defence spending issue could continue to play too central a role in American foreign policy thinking, at the expense of other aspects of East-West relations, and at the risk of a new and damaging arms race between the two superpowers.

Both candidates have expressed their support for arms control negotiations with the Soviet Union, if in different terms, but neither man would find himself in a particularly favourable position for moving in that direction.

After swinging back and forth on the issue, Mr. Carter now wants ratification of the second Strategic Arms Limitation Treaty, but it remains questionable whether he could get the necessary Senate majority. Mr. Reagan wants to bypass SALT II, and move into a third SALT negotiation with the Soviet Union; but it is even more questionable whether the Russians would find that an acceptable option. Russian recklessness may have delivered a damaging blow to detente, the more so as it is perceived in America as threatening the vital oil supplies from the Middle East. Yet one way or another, the U.S. has to remain on some sort of terms with the Soviet Union.

America's mood of national toughness, which has been encouraged by both main candidates, may also cause difficulties in trans-Atlantic relations within the Alliance. For reasons of history and geography, most European countries are not prepared to abandon what has been achieved in the name of detente for the sake of being tough with the Russians. American criticisms that some European countries are failing to pull their full weight in the Alliance may not be entirely unjustified, yet one way or another the next U.S. President will need to manage his affairs so that he is not simultaneously at odds with the Russians and with the European allies.

Uncertainties

The trouble is that on the political front, the future is likely to be rather unpredictable *and unstable; on the economic* front, the only thing that is predictable about the future is that it will be a great deal more difficult all round. What is needed is an American President who can give imaginative and mature leadership to his countrymen in coping with the uncertainties that lie ahead. On balance, Mr. Carter may be better equipped, by his intelligence and his four years' experience, to offer that leadership, but it is not an enthralling choice.

The election of a leader

COMMITTED Conservatives might think that the best outcome of the Labour Party election would be a victory for Mr. Michael Foot to be followed shortly afterwards by his replacement by Mr. Anthony Wedgwood Benn who would be chosen by a wider franchise on which a section of the Party has now set its heart. A Labour Party under Mr. Foot and still more under Mr. Benn would *almost certainly* become a diminishing force in British politics, thereby giving an easier ride for the Tories. A victory for Mr. Denis Healey, on the other hand, would provide at least the possibility of serious opposition, both in Parliament and in the country.

Muffled

It is precisely for that reason that we hope that Mr. Healey will win. As a politician, as an intellect and as someone capable of gathering popular support, he stands head and shoulders above the other contenders. There are really only two questions to be asked about him. The first is whether, if elected, he will fight to restore the Labour Party to some kind of sanity. The second is whether even he is up to the task.

Mr. Healey has been criticised for conducting a somewhat muffled campaign. True, he has said that if he wins, he will be prepared to stay as long as the Parliamentary Party wants him, which is one way of expressing scepticism about the proposed electoral college. He also condemned outright suggestions that MPs should vote on the leadership in accordance with instructions from their constituency organisation, which is more than can be said of another contender, Mr. Peter Shore. But beyond that he has been relatively quiet about the sort of Labour Party he would like to see and its constitutional arrangements.

There is a case here for giving Mr. Healey the benefit of the doubt. His first task is to be elected and he will need every vote that he can get. It would have been foolhardy to risk alienating a few Labour MPs by an unnecessarily pugnacious statement. Anyway, Mr. Healey's political views are in general well-known. He is Atlanticist, pro-Europe and pro the mixed economy.

It is the second question that really matters: could even Mr. Healey save the Party? There are several reasons for thinking that he might. The Labour Party has had internal troubles *before* and *survived*. It has, after all, been in office for 10 of the last 15 years. Left-wing or social democrat parties are also in power in much of northern Europe. Admittedly, those parties too have their problems: even Chancellor Schmidt would have to pay more attention to his own militants if he did not rely on a coalition with the liberal Free Democrats. But the European example does suggest that there is still strong support for moderately Left-wing parties and that such parties can succeed in office. Britain would be the deviant if its Labour Party were to disintegrate. Mr. Healey knows as much about all that as anyone else: one would expect him to seek to develop a Social Democrat Party with a chance of winning a general election.

Cruel

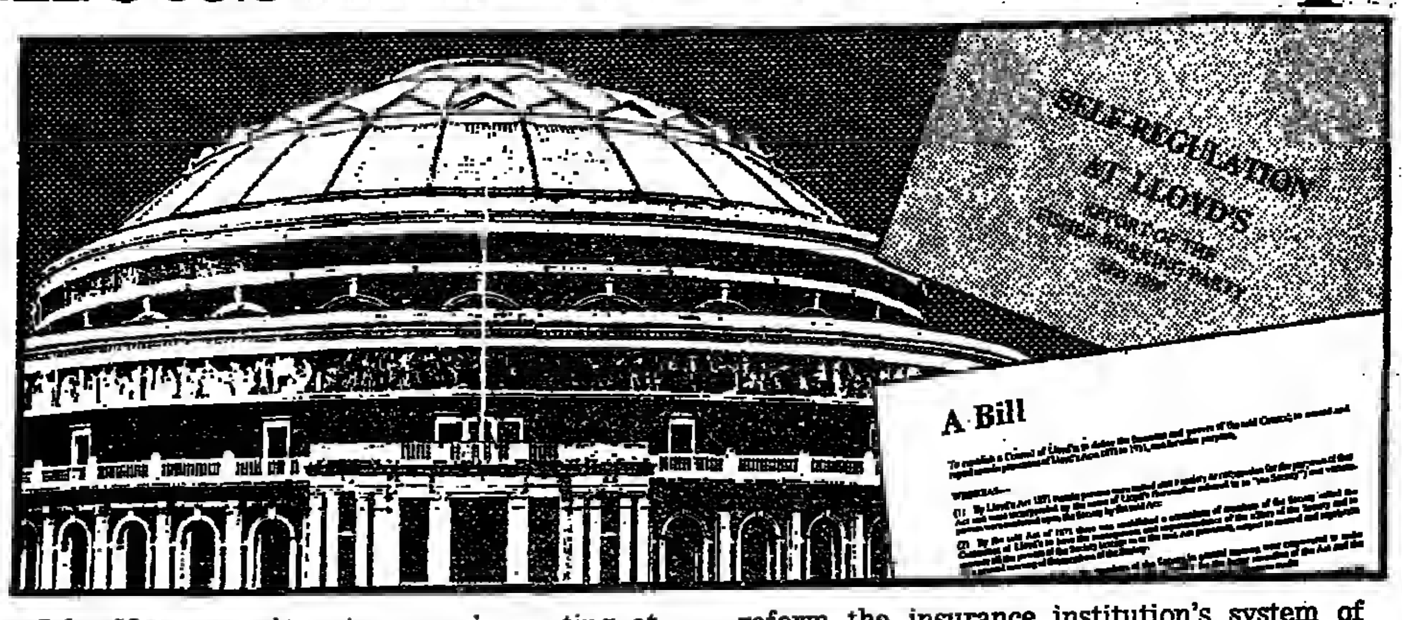
Yet the inheritance is a cruel one. If it were not for the British electoral system of first-past-the-post, the Labour Party would almost certainly have split some time ago. There would then have been a British Socialist or Social Democrat Party and a British Communist Party competing for votes. It is the knowledge that only a mass party can hope to win an election which has kept it together so long. The question now is whether the splits in the Labour coalition have become too deep to be repaired.

It is the state of the Labour Party that makes one wonder whether even Mr. Healey could perform a rescue act. We should like to see him succeed, but we would not pretend that the break-up of the Party would be a tragedy.

LLOYD'S: THE NEW BILL

A measure of self-discipline

"WE have always managed very well at Lloyd's without the heavy hand of bureaucracy and I cannot envisage that this will greatly change. There is a need for reform, but in tying up loose ends we have absolutely no intention of strangling ourselves." — Mr. Peter Green, chairman of Lloyd's, addressing the Institute of Bankers on October 28.



John Moore previews tomorrow's meeting at the Albert Hall, where members of Lloyd's are being asked to approve draft legislation to reform the insurance institution's system of government by creating a new council and formal disciplinary procedures.

TOMORROW, for the first time in 30 years, the private membership of the City of London's famous commercial club, Lloyd's, the insurance market, is meeting to promote a new Act of Parliament. The members are to be asked to approve the planned legislation.

About 4,000 of the total membership of 18,552 are expected to attend the meeting which is to be held at the Royal Albert Hall in London.

The new draft legislation has been prepared after completion of a detailed report into self-regulation at Lloyd's by Sir Henry Fisher, a former High Court judge. The study was commissioned by Lloyd's.

That report, presented to the ruling committee five months ago, raised serious questions about Lloyd's structure, its government, discipline, efficiency, management, security, and its accountability. The constitution of Lloyd's "is no longer appropriate" and the powers of the 16-strong ruling committee of Lloyd's "are inadequate for self-regulation in modern conditions," the report concluded.

Sir Henry Fisher's report and the subsequent draft legislation are a direct response by Lloyd's to the growing number of troubles and scandals which has occurred in the market in the past three years, posing a challenge to the way Lloyd's operates.

A dozen of the market's underwriting syndicates, the units into which the members of Lloyd's are grouped, have required special internal investigation, some of which have led to City of London fraud squad inquiries. *A broker and an underwriter* have been arrested.

Members of the Sasse syndicate, which faced £21.5m of losses, were rescued by Lloyd's. The 110 members had to pay up £6.25m between them, with the Lloyd's community meeting the rest of the *syndicate's liabilities*. Until the rescue members of the syndicate were suing Lloyd's for alleged broken rules and breach of duties.

Apart from the Sasse affair, a Parliamentary question was raised in 1978 into the way a possibly fraudulent claim was settled by the market.

Another dispute between a broker and underwriters over a claim arising from the destruction of a butter warehouse in Holland showed that more formal procedures, less dependent on goodwill of the parties involved, were needed to deal with commercial arguments.

And in a troubled period for the market Lloyd's is facing its largest ever losses on computer leasing insurances, and has attracted criticism for carrying out inadequate checks on this new class of business.

As a first step in what *Lloyd's has* described as a period of controlled change, the system of government at Lloyd's is to be reformed. A new Lloyd's council, which will be a rule-making body, and formalised disciplinary procedures are to be created. These will *allow Lloyd's to move swiftly* and with more confidence in its powers than in the past to restore order when the freedoms of the market are abused by the working members.

The creation of a new council *is more radical than it appears*. For the past 100 years or so Lloyd's has been governed mainly by an Act of Parliament established in 1871.

In 1871 there were 675 underwriting members of Lloyd's, all resident in the UK and most of them carrying on business in the City of London.

These members were entrusted with the rule-making power at Lloyd's. If rules were to be changed and bye-laws introduced, then a general meeting would be called by the Committee so that any change could be approved by the membership. Moreover, the ultimate power of whether a member should be expelled from the market rested with the membership.

In recent years, membership has expanded dramatically. When the last Lloyd's legislation appeared, in 1951, there were 2,913 members. This year there are 18,552 members and the number is likely to increase to nearly 20,000 next year.

More than 15,000 members do not work at Lloyd's and about 3,500 live overseas. Like shareholders in public companies, they provide the capital for the market to function. The large non-working membership generally has little knowledge of the day-to-day workings of the insurance business and does not exercise its right to take part in the government of Lloyd's.

The Albert Hall meeting to approve the new legislation emphasises how cumbersome the legislative machinery of Lloyd's has become.

Lloyd's members are drawn from people of financial substance, who have to pass a means test. Usually wealth of £100,000 has to be shown. Landed gentry, politicians, successful businessmen, the odd pop group, journalists, sportsmen, television personalities and others representing most aspects of successful and wealthy sectors of society all participate in Lloyd's prosperity.

The membership backs the risks, receives the profits and bears any losses. Only a small minority attend general meetings; the percentage has not exceeded 5.3 per cent in recent years. That is not representative *of the whole body* of the membership, for those that attended were largely the 3,000 or so who work at Lloyd's, such as underwriters, brokers, or agents.

Sir Henry Fisher and his working party concluded that Lloyd's would be best served by a representative democracy, rather than a direct democracy, with a new council comprised of all interests in Lloyd's, including non-working members who do not sit on the existing ruling committee of Lloyd's.

The new draft legislation prepared by Lloyd's will remove the legislative and disciplinary function from the hands of the Lloyd's membership and place it in the hands of the new council, which would be similar to that of the Stock Exchange.

But Lloyd's has back-tracked on the central concept of representative democracy since the Fisher proposals appeared. Although the new council is to be formed, the membership will be able to have an ultimate say in rule-making matters. Only 500 members will be needed to petition for a meeting, at which, in person or by proxy, the members can overturn any rule or bye-law which the council has recommended.

Mr. Peter Green, Lloyd's chairman, has said that it is not envisaged that this power will be invoked lightly or wantonly, and, of course, a third of the membership is required to vote in favour of any veto before a council ruling is overturned.

This change and other subtle alterations in Lloyd's version of the Fisher draft Bill are the result of heavy lobbying by sectional interests in the market.

Many of those working in Lloyd's fear that the introduction of excessive legalism into the affairs of Lloyd's, together with an officious bureaucracy, will squeeze the vitality out of the market and lose it business.

The 300-year-old *growth of* Lloyd's has been fostered in an environment which has given much encouragement to the entrepreneur and private enterprise. The individual freedom of the working members of the community has been respected by the ruling bodies. Codified rules backed by law have barely existed.

There is a significant body of opinion in Lloyd's which feels that the council, as proposed by the Fisher report, would have had too much absolute power. Moreover, the big brokers were worried about the recommendation that the new council should insist that they divest themselves of their underwriting links at Lloyd's, because of potential conflicts of interests.

Over half the underwriting capacity in Lloyd's is under the management of agencies which are controlled by Lloyd's insurance brokers. The eight largest broker-controlled agencies are in the hands of the eight largest Lloyd's brokers, which between them produce nearly 60 per cent of the premium income of Lloyd's.

The Lloyd's underwriting interests of Lloyd's brokers can contribute as much as a third to overall profitability. Naturally enough, the Fisher divestment proposal is being fought hard by the brokers. They want to retain the access to this important line of revenue.

The power of veto which they have gained for the membership should allow them a fall-back position to resist any proposed bye-law for divestment in the future. Even now, some of the large brokers are unhappy about the number of members required to vote in favour of a veto—they think that a third of the membership is too high.

Sir Henry Fisher, in his own proposals, did not include the divestment issue as part of the Parliamentary legislative programme and its future as a bye-law is uncertain. Other important proposals recommended in the Fisher report may also fail to be implemented, as the arguments of all vested interests are to be taken fully into account before any bye-law is introduced.

Lloyd's has traditionally relied on consensus opinion and the assent and agreement of its working membership before arriving at major decisions. That will not change.

There are underwriters at Lloyd's who feel that the draft bill as amended by Lloyd's is too skeletal, not incorporating enough of the hundreds of Fisher proposals in the Lloyd's Act and leaving too much uncertainty for the future. Other members feel that perhaps there should have been precise definitions of the role and duties of underwriters and brokers when possibly fraudulent claims come into the market.

And of course there are those that feel the Fisher proposals and further legislation are unnecessary.

What Lloyd's has prepared is essentially an enabling Bill. It is a comparatively brief document. The brevity owes much to Lloyd's efforts to meet its Parliamentary deadline of November 27. Lloyd's has preferred to leave most of the Fisher proposals for the new council to consider and establish through bye-laws at its discretion. This allows the new governing body the greatest flexibility and room for manoeuvre.

Sir Henry Fisher, in submitting his report to Lloyd's, said that if Lloyd's could be strengthened by the new constitution and self-regulating powers it would be able to "put aside any suggestion that it is not in control of its own membership and affairs."

To achieve this, it is important that Lloyd's sustains the spirit and essential details of the Fisher report when it comes to establishing its bye-laws. Since the new council will not be fully in action until 1982, the existing archaic structure will have to continue to serve the community.

WHO'S WHO AT LLOYD'S

SYNDICATE: Group of underwriting members. To allow a certain volume of insurance business to be accepted speedily and efficiently members of Lloyd's group themselves into syndicates. Some syndicates have hundreds of members, some a handful.

ACTIVE UNDERWRITER: Person (usually, but not necessarily an underwriting member) who accepts the insurance risk on behalf of a syndicate of underwriting members. Over 15,000 members do not work at Lloyd's but "invest" in the market by committing their private wealth.

UNDERWRITING AGENTS: Groups which manage the affairs of the members of Lloyd's. A managing agent manages a syndicate or a number of syndicates. A members' agent deals with the applications for membership, and introduces members to syndicates.

BROKERS: An insurance broker buys insurance on behalf of a client. Brokers who use Lloyd's need special approval by Lloyd's before doing business there. Lloyd's has no direct dealings with the public. Business must be channelled to underwriters through the brokers. Large Lloyd's brokers often have shareholding links and control of managing agents.

MAIN POINTS OF THE BILL

- A new Council of Lloyd's is to be formed of 25 members to make general rules and bye-laws.
- The Council would consist of 16 working members of Lloyd's elected by other working members. Six "external members"—those who do not work at Lloyd's but who commit their wealth to allow the market to function—to be elected by other external members. *Three of the Council members are to be* drawn from those outside Lloyd's, who are not members. The outsiders will be nominated by the Council and their appointments confirmed by the Governor of the Bank of England.
- The Council will manage and supervise the affairs of Lloyd's but will have the power to delegate the regulatory powers to a committee of Lloyd's, which will consist of the 16 council members who work at Lloyd's.
- Any bye-law which the Council introduces can be vetoed by the membership. If members wish to review a bye-law imposed by the Council, a notice in writing signed by 500 members may be served on the Council calling a general meeting.
- A disciplinary committee and an appeal tribunal to be created by bye-law by the Council.

MEN AND MATTERS

Taiwan takes off the brakes

Stopping the free-wheeling operations of industrial forgers in Taiwan has now become an urgent priority for Ferodo brake-makers, Turner and Newall.

The company, which opened a £2m factory in Nigeria last year to make its brake linings and disc-pads, is finding the country flooded with phoney Ferodo products. "If the forgeries continue on the present scale for another six months, the viability of the whole factory will be threatened," says T and N director, Ronald Somerville.

The Taiwan source of the counterfeits was tracked down and penetrated by two intrepid T and N executives, posing as buyers. They were shown around an Aladdin's cave of forged automotive components, bearing brand names like Lucas and AE as well as Ferodo.

Taiwanese ingenuity did not stop there, they were amazed to discover. They were asked if they wanted the Ferodo products as made in Chapel-en-le-Frith or in Italy. The packaging for each variety was perfectly simulated.

Company lawyers are working overtime to end the freebooting operations which, says Somerville, threaten more than T and N's profits. The braking distance for a car fitted with the genuine Ferodo product and being driven at 40 mph in good conditions is 56 feet. Company tests on the Taiwanese version show the equivalent figure is 317 feet.

Prize past

Currently whizzing round New York, London and Paris, the inexhaustible vice-chairman of Svenska Handelsbanken, Tore Browaldh, was not at home to receive my congratulations yesterday.

This non-smoking, teetotal, chocolate-addict pillar of the Swedish establishment has been elected to membership of the Royal Swedish Academy of Sciences. He thus joins the elite group which yearly distributes the Nobel Prizes for physics and chemistry and the economic science award instituted in Nobel's memory in 1968 by the Swedish Riksbank.

Appointed chief managing director of Handelsbanken at the age of 39, he moved up to chairman between 1966 and 1978. Although he is now less in the centre of things at the bank, Browaldh maintains a formidable list of business commitments. Chairman of Volvo and eight other major companies, he sits on the advisory boards of Unilever and IBM Europe, and reportedly runs all his affairs at top speed.

Boasting a "note" of 200 syllables a minute, he even drafts his own correspondence in shorthand, leaving his corps of three secretaries merely to do the typing. And while they are tapping away, I hear, Browaldh the jazz-lover is wont to sneak off to the bank's main dining room and indulge in a quick burst of Tiger Rag on the company piano.

Moody blues

Through its own efficient channels, I hear that Guernsey's Post Office Board is having trouble brushing up its corporate image.

The Board decided to change its official colour from traditional British red to a distinctive shade called "French blue" to promote philatelic sales. Overseas customers have been responding so well that *profits from* the sales this year are expected to double to more than £1m.

But the islanders are still objecting strongly to the repainting of their pillar-boxes. Blue is a colour that few apparently like and many complain cannot be seen at night. The controversy has now focused over the head of hotelier Reg Matthews, who has flatly refused to allow the Post Office artists on his property to slap a new coat on the island's first post-box.

This was erected in 1852 after Anthony Trollope had visited the island to inquire into the improvement of its postal services.

He insists it should remain red or be repainted in its original colours—green with black lettering and gold coat of arms.

The Post Office has retired to think it over, though vice-president J. A. C. de Garis thinks that a little white lining yet to be added to the blue will remove the discordancy. Cost of the changeover, he insists meanwhile, has "absolutely nothing" to do with the increase looming in local postal charges.

Poetics injustice

"Aristotle and Machiavelli go home" is an improbable political slogan to be found in an election. *But the two philosophers* have cropped up as an issue in Montgomery County, in the suburbs of Maryland. The sort of place where people normally flock to live, it is one of the wealthiest counties in the U.S. and its institutions, above all its educational system, are considered among the best in the land.

But a high school teacher there, Cyril Lang, is being threatened with suspension because he insists on teaching Aristotle's poetics and Machiavelli's The Prince to his English class of 15- and 16-year-olds.

The school board, intent on applying a uniform curriculum throughout its schools, has, in its imperial wisdom, decreed the works too difficult for teeny-boppers and recommended them only for the specially gifted.

The bureaucratic squabble, of course, masks the political. School board elections this week pit liberals against the conservatives with a vengeance; the former want maximum teacher freedom, the latter a prescribed, *and controlled*, reading list.

Aristotle—"Man is by nature a political animal"—would surely have understood. And Niccolò—"It is much more secure to be feared than to be loved"—would doubtless have smiled with satisfaction.

Boarding out

"Mr. Chairman, is food going to be provided? My blood-sugar level is dropping rapidly," demanded one shareholder towards the end of the near three-hour extraordinary meeting of insurance broker, Christopher *Moran, at the* Savoy. But the robust questioning in general appeared to be due neither to lack of food nor to the opening of a bar during the protracted proceedings.

"It's like Barnum and Bailey's circus," yelled a bemused bystander *trying to distinguish* between those directors making their exit, those making an entrance, and the legal advisers who outnumbered both sides.

David Bryans, co-opted by Christopher Moran to take the chair, had some difficulty *explaining* the *credentials* of the new board. Ronnie Reeves was to be elected, he announced. "Who's he?" several shareholders queried. "I have known him for some time," Bryans responded amid laughter.

It was not enough to gain Reeves *an immediate popular* vote. The first count was tied 13-13, and a recount went 19-15 against him. "Get out of that," cried another shareholder. Reeves very quickly did. A poll gave him 9.9m votes with only 8,000 against.

Price age

Margaret Thatcher might have made a better historical choice than Queen Elizabeth I as a model for her determined war against inflation.

Barrister and Blackburn Labour MP, Jack Straw, began browsing through a few economic histories after the Prime Minister's weekend call for a renewal of the old Elizabethan spirit.

Good Queen Bess took her first action to stop the debasement of the coinage in 1561, he tells me. Tudor price rises were only curbed in the 1630s according to some historians. Others argue that industrial prices did not level out until more than a century later in the 1670s.

Observer

FINANCIAL TIMES SURVEY

Monday November 3 1980

Office Equipment

The technology is available to produce major increases in office efficiency and productivity. But first it will be necessary to unite both users and suppliers of the advanced equipment in a common desire to bring about the new order—a task requiring the will of Government, managements and workforce.

Big scope for savings

By Guy de Jonquieres

IT IS barely three years since Mr. James Callaghan, Britain's former Prime Minister, discovered the existence of the "chip" by happening to tune into a television documentary about microelectronics and decided that it was high time that Britain got into the act.

The result was a spell of agitated consultation in Whitehall, which spawned Government support for a slew of new projects. They included State-backed ventures in integrated circuit manufacturing (Inmos), computer programming (Insac) and programmes to encourage industry to use microelectronics in their products and processes (MAP and MISP).

Now a new buzzword is circulating in Whitehall: "Information technology," sometimes referred to less elegantly as "telematics." Once again warnings are being sounded that Britain is in danger of being left behind in a fiercely competitive international race, and anxious civil servants are wrestling with ideas for policies for catching up.

Information technology (IT for short) is a somewhat amorphous term which covers broadly the application to information handling techniques of increasingly inexpensive microelectronics and advanced communications technology. It embraces a vast range of products and systems, extending from desk-top microcomputers or word processors to extremely sophisticated and costly communications services based on satellites or optical fibres.

The most recent official *obiter dictum* on the subject is the report issued last September by the Cabinet Office Advisory Council for Applied Research and Development (ACARD). It finds two definitions for IT:

"On the one hand, the term may be confined to the actual equipment used to collect, store, process, transmit and display information. On the other, it may encompass not only the equipment (and the software that controls it), but its interactions with human activities and the management systems necessary if the capabilities of new developments are to be fully exploited."

ACARD estimates that the world market for IT products is worth about £50bn annually and is growing by 10 per cent a year, in real terms. It believes that the potential applications are almost unlimited, stretching across banks, shops, business houses, factories, government offices and the home.

As the report points out, other countries have been quick to recognise the significance of the new technology, and governments notably in France, Japan and West Germany are giving heavy support for its development. The U.S., with its dominance of the world computer industry, already enjoys a substantial lead. But even there, it is said, it is increasingly recognised that the development costs of advanced data communications and processing systems are likely to exceed the resources of most private companies.

ACARD recommends that in Britain, the Government step up assistance to research and development, training and implementation of IT. It proposes, among other things, that responsibility for co-ordinating Government actions in the sphere be brought under the responsibility of a single minister and that legislation be passed where necessary to stimulate and facilitate the application of IT.

Clearly, any policy to speed the development of Information Technology needs to distinguish between measures to encourage its application and the steps required to stimulate industry to supply the necessary equipment. In the former instance, the fact that the ACARD study was published at all suggests that awareness of the technology among potential users is still at a fairly low level.

Hammering

By common consent, the office presents one of the most promising opportunities for automated information handling techniques. For years, management consultants have been hammering away at the fact that the value of investment in automation, per office employee, has been a mere fraction of investment per factory worker. The scope for increasing efficiency and productivity should therefore be enormous now that the appropriate technology is available.

One of the most comprehensive attempts to measure the potential benefits of office automation was completed recently by Booz-Allen and Hamilton, the U.S. management consultancy. On the basis of a year-long study of 15 major American companies, Booz-Allen estimates that U.S. managers could achieve productivity gains worth \$125bn annually by 1985 and \$300bn by 1990 by making full use of automated office equipment.

The report finds that managers and other "professional" staff spend between 15 and 40 per cent of their time performing what they consider unproductive activities such as clerical tasks, retrieving information or chasing up work done by other people.

Most, if not all, of these tasks could be handled by office information systems at a saving that would cover the required investment in just over a year, the report says. Moreover, according to Booz-Allen, many executives are likely to decide to use the benefits of higher productivity to increase their output rather than cut staff.

As in a number of other studies in this field, the Booz-Allen report emphasises that the biggest savings from office automation will be achieved by raising the productivity of managers and other decision-makers, rather than of clerical and secretarial staff. It also tends to assume that business will be driven to automate their offices by the pure logic of economic necessity, in the form of rising overheads, the need to maintain competitiveness and so forth.

But some caution should probably be exercised in transferring the lessons of the U.S. experience directly to Europe. One reason is that American managers appear to be considerably better-equipped than their European counterparts to operate modern office machines which, for the foreseeable future, seem likely to require a proficiency in using a keyboard to enter and retrieve information.

The Booz-Allen study reveals that no less than 59 per cent of managers interviewed knew how to use a typewriter. (The explanation, incidentally, is that most American executives have attended a university, where they were encouraged to type their examination papers). No comparable figure exists for managers in Europe, but it is unlikely that it would be much more than 25 per cent.

The economic rationale for office automation may also be different on the two sides of the Atlantic. In the U.S., the differential between the pay of corporate executives and that of secretaries and clerical workers is still quite wide. Wider, certainly, than in Britain, where the salary of a middle manager may sometimes be only twice or less than that of an experienced secretary.

It may well be, therefore, that some British companies will be moved to automate their offices more out of a desire to reduce secretarial and clerical overheads than to boost the productivity of their executive staff. For this reason, perhaps, more concern is expressed about the risk of job losses by clerical unions than is heard from the ranks of managers.

Further training

A recent study by the Equal Opportunities Commission estimated that the introduction of office information technology would mean the loss of up to 170,000 secretarial and typing jobs in Britain by 1990. It suggested that the best way to mitigate unemployment would be for female office workers to be encouraged to obtain qualifications which would enable them to take over some added responsibilities in the field of management.

The speed at which office automation is introduced will be governed not only by its social and psychological acceptability, but also by the wider commercial and industrial environment against which it is set. In Britain, the Government hopes that the planned relaxation of the Post Office monopoly will help lay some of the groundwork by encouraging private suppliers to offer a wide range of new terminal equipment.

But there is little purpose in offering businesses sophisticated office products, many of which will be designed to link into the communications network, if the Post Office is no more able than at present to provide the necessary private circuits and telephone lines. This is a point grasped early on by the French Government, which is spending massively on improvements to its national telecommunications network, on which it is committed to offering advanced public services such as video-conferencing, a national facsimile transmission system and satellite business communications.

But stimulating awareness of and demand for Information Technology is only one side of the coin. The other is to develop the industrial capacity to supply the products required; otherwise there is a risk of creating a new market which exporters in other countries will be only too happy to fill.

Many powerful American corporations, including International Business Machines, Xerox, American Telephone and Telegraph and Exxon are squaring off for a major battle for supremacy in the rapidly-growing U.S. market for Information Technology. By virtue of their size, resources and expertise they are certain to prove tough competitors in Europe, too, where both IBM and Xerox already have established positions in office equipment.

Devising a strategy which strikes a satisfactory balance between the consumer, in the form of the users of information technology, and the producer, in the form of the industries which supply the necessary equipment and services, may not be easy.

The still undecided question of how the British Government should award the forthcoming contract to computerise the Inland Revenue's Pay-As-You-Earn operations is seen by many as a test case of the issues involved. Ministers have been deeply divided between those who want the order to go to International Computers (ICL) in order to strengthen Britain's principal computer manufacturer, and those who favour opening the bidding to U.S. companies in the belief that they will offer a superior technical solution.

The arguments remain finely balanced, and the issues involved are unlikely to be finally resolved whichever way the decision goes. The debate about how best to harness Information Technology once it gets going, is likely to range considerably wider and to be even fiercer.

But recent experience in other, related fields, such as microelectronics, seems to point at least to two general conclusions. The first is that, despite the growth of overt and covert protectionism, the big winners in the commercial battle for sales of advanced technology products are those who think in terms of world markets, not national ones. The second is that in advanced technology, those who aim merely to catch up, rather than to take a clear lead, are often condemned to fall further and further behind the pack.

CONTENTS

Rising reputation as a competitive centre

WEST GERMANY

JEFFREY BROWN

WEST GERMANY is the largest office equipment market in Europe. To the extent that tbe country possesses the largest economy within tbe EEC, this is understandable. But the size—and projected rapid growth—of demand for data processing equipment also reflects a number of other important influences.

One key is the technological strength and ingenuity of the West German electronics engioeer. Among the major European electronics groups, Siemens has made significant inroads into the near stranglehold once held oo the European computer market by tbe U.S. monolith io the industry, IBM. At the other end of the business, Nixdorf has an enviable reputation in small computers as well as a number of important markets sbares.

Similarly, Triumpb-Adler is pushing hard for a greater slice of available business, and doing so on a world-wide basis now that it is backed by the powerful financial muscle of the Volkswagen motor group.

Kienzle and Ruf figure prominently on the list of successful German companies in office electronics: among those with a multinational manufacturing base. AEG-Telefunken, Manessmann and BASF staod out.

Overall, West German data processing sales expanded by 22 per cent in volume terms last year. Small and office sized computer installations rose by 21 per cent but the sharpest growth in the industry was concentrated in process control and mini computers. Expansion here was no less than 35 per cent in 1979, and German manufacturers picked up a large slice of the business.

Demand for data processing equipment continues tn rise at all levels. During the second quarter of 1980 telecommunications production in West Germaoy advanced by close oo 16 per cent while output in computers expanded by almost 10 per cent. By 1984 the market in the Federal Republic for copiers, word processors and office systems is reliably forecast to be around 50 per cent greater than it is today.

IBM remains the market leader, both in technological advance as well as in pricing. Tbe U.S. giant still bas a share of the German data processing market in excess of 50 per cent (if ooly just these days) but the company faces a number of increasingly competitive battles. Siemens now controls around 18 per cent of the market in mainframe installations in Germany while in small systems Nixdorf holds some 30 per cent of the German market.

Moreover, as part of a broad strategy a number of German companies bave linked with Japanese producers and in so doing have intensified the battle against IBM domination. Siemens has strong links with Fujitsu: earlier this year chemical giant BASF entered an agreement with Hitachi allowing Japanese hardware to he marketed nnder a BASF label.

The German market is thus increasingly acquiring a reputation as one of the most competitive centres for office equipment in Europe—and the key to this trend is the sheer size of the market in European terms. According to Diebold Deutschland, mainframe installatioos in Germany in 1979 rose by 15 per cent to 24,000 providing tbe Federal Republic with the hroadest compnter base in western Europe.

Far and away the leading manufacturer is Siemens. As an electronics group, Siemens ranks as Number Two in Europe (after Philips) in terms of turnover and is Number Four in the world. It is successful, with earnings growth averaging 10 per cent per annum over the past five years, and despite tbe strength of tbe DM over the period it has been a major and consistent exporter. Currently, some two-fifths of West German output finds its way overseas.

The company represents one of the commanding beights of European technology, backed by an annual researcb and development budget in excess of DM 3bn.

Contrast

In contrast to power eogineering and telecommunications, Siemens' data and information systems operations are relatively modest, accounting for just 6 per cent of sales in the year ended September, 1979. But the division, working from this small base, is the fastest growing within tbe group: orders stood at DM 2bn at the end of 1978-79, against DM 1.4bn two years earlier, and profits over the period had advanced by a third.

The main contributor to sales in this division, data processing, moved out of the red in 1977-78. Tbe other activity, small computers and peripberals, continues to make start-up losses and is likely to stay in the red for a number of years yet. The company's project development spending is beavy; this topped 30 per cent of external sales last year, compared to less than a tenth at ICL of the UK.

After the abortive formation of Unidata, the French, Dutcb and German grouping which was to bave been the main Euro-challenge in computers, Siemens is now firmly established in electronic data processing. Orders on hand at September, 1979 suggest that the group is already some four-fifths of the size of ICL. The company now claims a 9 per cent share of the European market.

AEG-Telefunken pulled out of mainframe computers in the mid-1970s when selling to Siemens, but the company has a sizeable stake in the smaller business machine market and is the largest typewriter manufacturer in the world. A late entrant to the market for electronic typewriters, AEG's Olympia operation hegan a launch in this field in Germany in July 1979. The new electronic product aims at the standard office machine market.

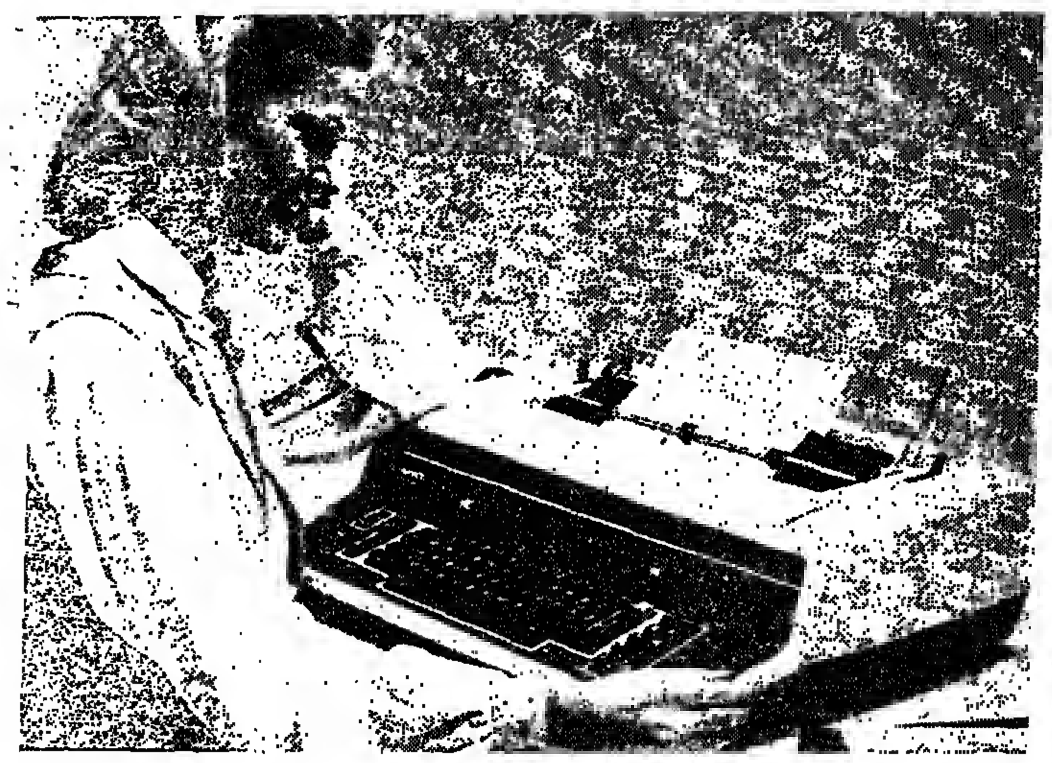
Virtues

In comparison with the financial virtues displayed by Siemens, AEG's record is blemished almost beyond recognition. After years of loss-making, it came close to financial collapse last year only to be rescued by a massive capital injection by the State and the German hanking system. Losses this year are going to be beavy, but the management claims some progress on along the road to profits for 1981.

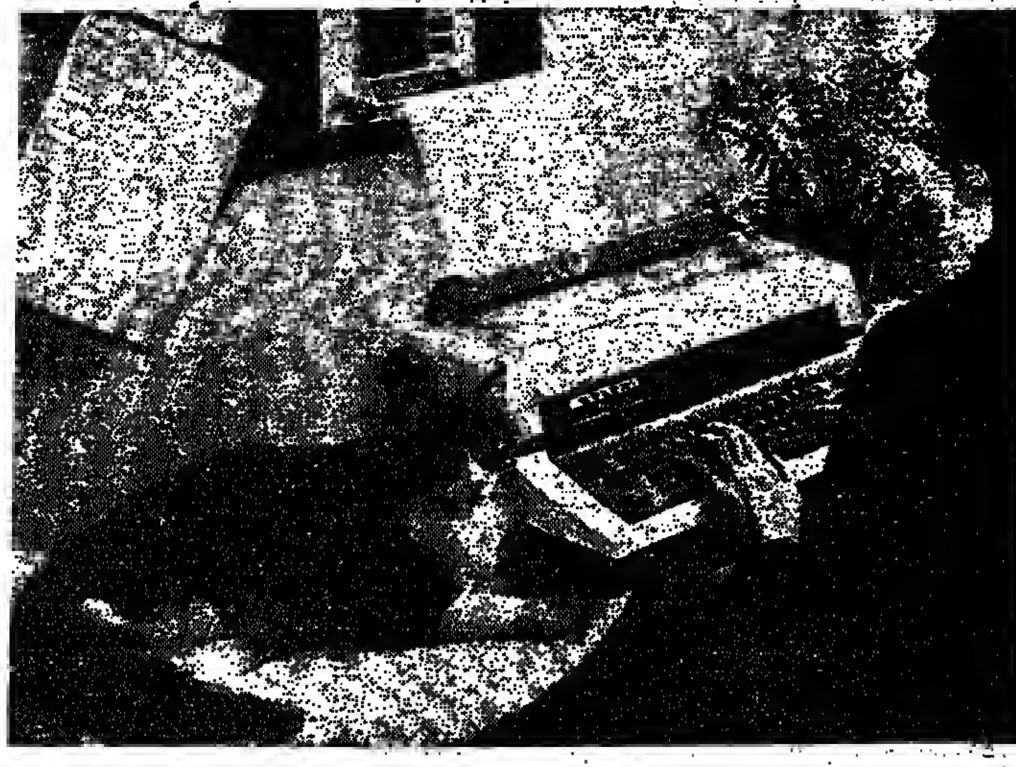
During the first five montbs of this year new orders at Nixdorf rose by 43 per cent and—in contrast to much of West European industry — the company has been busily signing up new staff. Founded in 1952 and still family controlled Nixdorf's market shares in its field are two to three times larger than its closest German rivals.

For new owners Volkswagen, Triumpb-Adler represents the first major diversification away from the motor industry. The company has a wide range of products covering the area of typewriters, computers, text processors, copiers and calculatnrs. The casb backing now available to its management is allowing the move into an increasingly ambitious range of electronics to he accelerated.

For its part, BASF entered the computer industry as recently as July this year wben agreeing to market Hitacbi computers under a BASF name. The chemical group bas excellent credentials in peripherals and media supplies, and clearly it aims eventually tn become a complete systems supplier. It bas already struck out into the personal computer market hoth in Germany and in the U.S.



A new generation of three electronic typing machines from Switzerlond has just been launched by Hermes in the UK. The mochines hare been designed ond developed to optimise speed, comfort ond efficiency in day-to-doy typing, with simpliicty of operotion. The monufocturers claim thot the three top-tronic typewriters fill the gap between the conventionol electric typewriters and the more sophisticoted word processor. For maximum speed the top-tronic ronge uses o daisy whel printer and has n print-out speed of 16 cps. The 100-character print-wheel con easily be chanoed to n different type style. A corbon ribbon cassette is used for cleonliness ond eose of operation ond there is on odditional focility for stencil typing. The keybvord is comprehensive and oll the functions are clearly designated including the illuminotion of the line of type. The top-tronic 20 (nbove) is claimed to introduce the typist swiftly ond easily to the world of electronic lyping. Selling for £898, it is the basic model of the range with no text memory, but n full range of page setting functions to save the typist time and effort.



In n further effort to help reduce the overall noise levels to which office workers are subjected each day, the Office and Electronic Machines group (OEM)—UK distributors of Adler and Imperial office equipment—have launched n new quieter "golf ball" single element typewriter. As the latest in the Adler and Imperial electric "golf ball" ranges, the new machines are called the Adler SE 1000 CDL and the Imperial SE 5000 CDL and have been "integrally insulated" to ensure a noise level emission of no more than 68 decibels

There is fierce competition between European office furniture manufacturers, particularly in the areo of furniture suited for use with new technology. The Swedish-made VDU furniture (obore) from NKR is described as being ergonomicolly correct with the operator's comfort poromount in the provision of both independent height and laterol adjustments for keyboard ond display screens, tilting of the screen surface to obtain the correct head position and recessed legs for ease of sideways movement.

Manufacturers speed up new developments

JAPAN

JOHN FUJII

JAPAN HAS been lagging behind Western countries such as the U.S. in office automation by at least five years. Office automation is necessary to improve management productivity in which the Japanese have been slow although they have been world leaders in industrial productivity. But now the Japanese are stepping up their development of office equipment, such as word processors, copiers, facsimilies, small business computers, and peripherals.

The biggest bottleneck to office automation in Japan up to now has been the Japanese language which has held up growth of the Kanji (Chinese character) word processor. At present there are two types of Japanese word processors. One is the tablet type in which an electronic stylus is used and modelled much on the old mechanical Japanese typewriter. This has a battery of 3,644 characters.

The latest Japanese word processor is the type developed by Toshiba Corporation and Fujitsu Limited which provides up to 80,000 characters available in a floppy disk storage. Fujitsu's OASYS-100 model for instance, provides 60,000 kanji, 20,000 proper names and 48 common expressions, and Toshiba's JW-10 makes 80.000 characters available.

The Japanese manufacturers have taken the idea of their word processors from the U.S. It was first developed at Massachusetts Institute of Technology (MIT) and at Harvard, where the kanji processors were developed for the Chinese language.

Toshiba introduced their JW-10 model Japanese word processor in 1978. They were quickly followed by Sharp, Ricoh, Canon, and Nippon World Processors in 1979 and in 1980, Fujitsu, Nippon Electric, Matsushita Communications, Pentel and Oki Electric have come out with their models.

So far, only Toshiba, Fujitsu, Oki, Ricoh and Canon have the new keyboard-display word processors while Sharp, NEC, Matsushita and Mitsubishi Electric cling to the older tablet model. Copies are made either by 16-dot or 24-dot printing. Toshiba already has a 24-dot while Fujitsu announced it will be converting to the 24-dot method shortly which provides a better final copy.

An industry estimate is that there are now between 1.000 and 1,500 units in actual operation throughout Japan and growing rapidly, while Toshiba said that the price of their unit has come down from Y6.3m ($30,000) to Y2.6m ($12,380). Kenichi Mori, chief analyst at the Toshiba Information Systems Institute, said that eventually every section in major Japanese offices would need at least one.

Language barriers

The Japanese word processor is definitely not for export. The Chinese language is basically different from the Japanese and the Japanese unit cannot be used in Chinese-speaking countries. There is some possibility that the Japanese processor could be converted for use in Korea where the Hangul alphabet is similar to the Japanese Kana alphabet. In simple terms, the Japanese word processor transcribes the words expressed in Kana on the keyboard to Kanji characters in the written document interspersed with the necessary Kana phrases.

There is also rapid growth in Japan for English word processors, especially in trading companies which have a lot of English correspondence. One shortcoming, however, is a lack of middle management people who can handle word processors, either in Japanese or English.

The next development in office automation is for the word processors to be linked to communications equipment so that there can be a link between sections in one office or between the main office and its branches. This would speed up the preparation and transfer of documents, explanations and specifications as well as ordinary business messages.

The addition of an automatic telex transmission facility will enable the Japanese message to be translated into English by an automatic translating machine and then transmitted abroad. Thus a Japanese message can be put into an office automation system, translated and transmitted overseas.

In the future, facsimiles may be combined with an office computer, word processor, copier, optical character recognition (OCR), private telephone exchange and other office peripherals. Fuji-Xerox has a patent pending for an Ethernet office intercoonection while the Xten system is becoming available for satellite communications. Text generation equipment — typewriters, word processors and dictation units—are expected to overtake reproduction equipment, such as duplicators and copiers as the largest office market segment.

Altogether, there will be more than $16bn-worth of office automation equipment world wide by 1990, according to a study made by Predicats Inc. This compares with less than $5m in 1978.

At present, the world-wide automated office equipment business is dominated by the Xerox group with its affiliates such as Rank-Xerox in the UK and Europe, and Fuji-Xerox in Japan and South-East Asia. But other companies such as Exxon, Kodak, Wang Laboratories, Burroughs and Lanier are expected to move into the market during the last half of the 1980s.

There are more than 20 companies engaged in the copier market worldwide. The Japanese have cornered the lower end of the market while the foreign companies concentrated on the high-volume users. Most Japanese now sell in the low-to-middle segment of the market but are now moving into the higher end where profits are greater.

Ricoh, Canon, Minolta and Sharp are the major Japanese companies. Fuji-Xerox and Ricoh dominated the Japanese copier market up to now but Canon, Sharp, Toshiba, Konishiroku and Minolta have launched sales offensives for the anticipated 30 per cent growth in the market.

Ricoh is planning to sell direct in the U.S. and Europe where, previously, they sold through Savin in the U.S. and Nashua and Kalle Infotec in Europe. Present plans are for Ricoh to sell new models directly and the older models through their present arrangements until 1983 when they hope to renegotiate their contracts.

Some of the copier manufacturers are promoting and marketing peripheral equipment such as sorters and automatic document feeders—previously adopted by Fuji-Xerox, IBM Japan and Canon for their high-speed models which can provide 40 copies or more per minute.

Companies like Toshiba, Konishiroku and Matsushita also intend to market peripherals for use with medium- and high-speed copying machines. Plain paper copiers are being incorporated into systems with other office machines such as small computer facsimiles, word processors and microfilm equipment.

Rapid growth

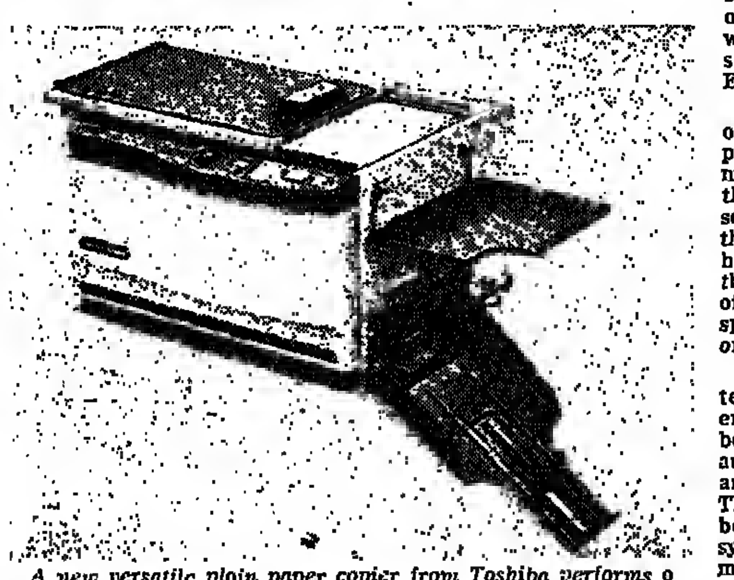
In Japan the facsimile manufacturers are mainly electrical appliance and office machine companies. The number of facsimile units installed and operational in Japan was estimated to be between 150,000 and 160,000 at the end of 1979. Annual production is now approximately 50,000 units which is worth up to Y60bn ($285m). Rapid growth of 30 per cent per annum will make it a $715m industry by 1983, according to industry estimates.

Small office computers are a story in themselves. According to MITI (Ministry of International Trade and Industry), there were 58,944 systems worth $13bn in Japan at the end of March 1979, of which 83 per cent are small and ultra-small computers. Of this, office computers total 15,000 units with a 30 per cent annual growth—office computers are those which handle payrolls, inventory controls and sales management—and they are expected to have a total market of $950m in 1980 growing to $1,428m in 1983.

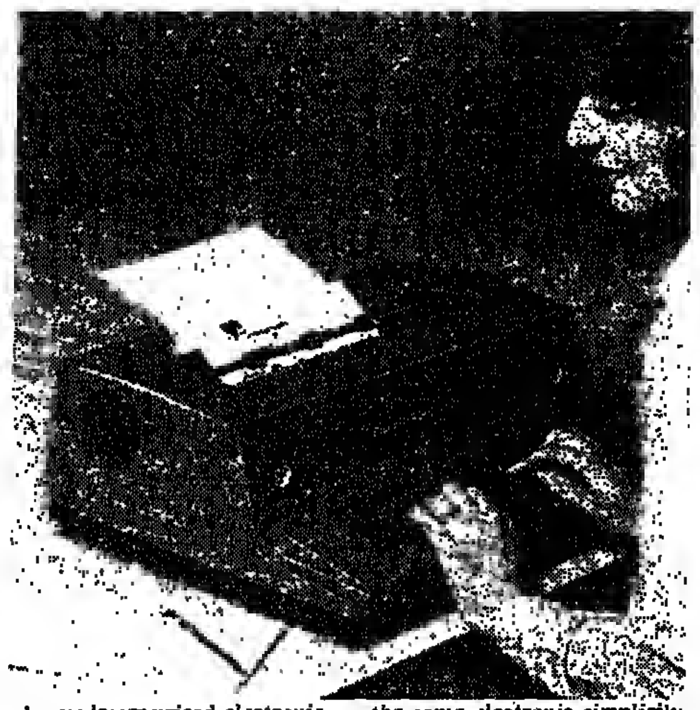
In Japan, the manufacture of these very small computers is expanding rapidly, and the Japanese computer manufacturers involved are Fujitsu, Nippon Electric, Hitachi, Toshiba, Sharp, Sanyo Matsushita and Canon.

Eventually the complete automation of tomorrow's office would require that these small individual computers, facsimiles, copiers and word processors be joined together in a system.

The Japan Business Machine Makers Association, which has 32 members, said the industry has grown from $44m in 1960 to $2.4bn in 1980. The association estimates that exports of business machines in the fiscal year 1980 (ending in March 1981) is expected to increase by 7.7 per cent to Y428.6bn or $2bn. The breakdown: copiers, $809.5m, up 17.1 per cent; typewriters, $182.3m, up 16.3 per cent; electronic cash registers, $271.4m, up 6.2 per cent and electronic calculators, $733.3m, up 8.9 per cent.



A new versatile plain paper copier from Toshiba performs a wider range of copying tasks than is usual. It is the BD-3802, now available in the UK—from the distributors, the Office International Group



A new lower-priced electronically controlled typewriter is being introduced from Japan, with the aim of extending the market into the smaller business area. With a price little more than the cost of the average manual typewriter, the new "Popular" single-element typewriter has the same electronic simplicity that powers the more expensive SR-25-CE.

Both machines are from Silver-Reed, one of the world's leading typewriter concerns. The "Popular" has versatile electronic carrier operation, controlled by a microprocessor.

Some major participants in the business equipment market in Japan

Canon

CANON: Sales for 1979, Yen 180bn: net income, Yen 9.5bn. Like Ricoh, a broadly based camera group with strong ambitions in the area of business machines.

Cameras account for 52 per cent of turnover with copiers representing 24 per cent and calculators, 13 per cent. Exports—mostly cameras—account for nearly three-quarters of sales.

FUJITSU

FUJITSU. Sales for year ended March, 1980, Yen 500bn: net income Yen 15bn. Japan's largest computer group. Fuji Electric is a major shareholder. Computers and data communications account for two-thirds of sales of which exports make up some 16 per cent. Strong ties with TRW and Amdahl in the U.S., and Siemens in West Germany. Plans integrated circuit plant for Ireland.

HITACHI

HITACHI. Sales for year ended March, 1980, Yen 1,800; net income Yen 50bn. Largest electrical machinery maker in Japan. Traditional heavy electrical base still dominates, but sales include a 26 per cent contribution from communications and electronics. Has links in computers with Fujitsu. In Europe, marketing links forged with National Semiconductor, Olivetti and BASF.

MATSUSHITA

MATSUSHITA: Sales for year ended November, 1979, Yen 1,726bn: net income Yen 61bn. Largest consumer electronics group in the world with brand names like Panasonic and Technics. Big in home appliances and radio equipment. Communications and audio visual operations are concentrated in the 67 per cent-owned. Matsushita Communication Industrial.

NEC

NIPPON ELECTRIC: Sales for year ended March, 1980, Yen 705bn; net income, Yen 12bn. Major telecommunications group and number seven in world rankings. More than a quarter of sales stem from computers and industrial electronic systems. Plans to set up an integrated circuit plant in Scotland which would represent Japan's first ever microchip investment in Britain.

RICOH

RICOH: Sales for year ended March, 1980, Yen 223bn: net income, Yen 12bn. Major camera group, but also Japan's largest producer of copiers.

Cameras still comprise more than half of turnover, but a major push into business machines has lifted copier sales to a quarter of total with calculators contributing 13 per cent. Just started direct selling in Europe.

Some of the UK's major participants in the business equipment market

ICL

INTERNATIONAL COMPUTERS: Sales in 1979 were £624m. The only British and European independent manufacturer of mainframe computers, ICL was cut free from the National Enterprise Board at the beginning of the year.

ICL office systems include minicomputers and word processors. Only real challenger to the Americans in big mainframes outside Japan.

NEXOS

NEXOS: Fledgling UK company, established by National Enterprise Board two years ago to develop and supply modern office products and systems. Does not make own products but works with manufacturers including Muirhead and Logica in Britain and imports some Japanese equipment. Prouct range includes powerful computer made by Exxon subsidiary Delphi, word processors, facsimile machines and copiers. Its strategy has yet to be fully tested in the market place.

GEC

GENERAL ELECTRIC: Sales for year ended March, 1980, £3bn: pre-tax profits £415m. Largest electrical group in UK and number eight in the world rankings. In profit terms, electronics, automation systems and telecommunications is the biggest single operating division. Well over £100m was spent on acquisitions last year but balance sheet still contains cash balances of £600m.

Gestetner

GESTETNER: Sales for year ended October, 1979, £268m: pre-tax profits £19.1m. Major manufacturer of stencil duplicators. Has recently moved into copier market following launch last year of plain paper copier; 90 per cent of sales arise outside the UK, helped by strong global network of distributors. But late move into copiers and strength of sterling has put earnings under pressure.

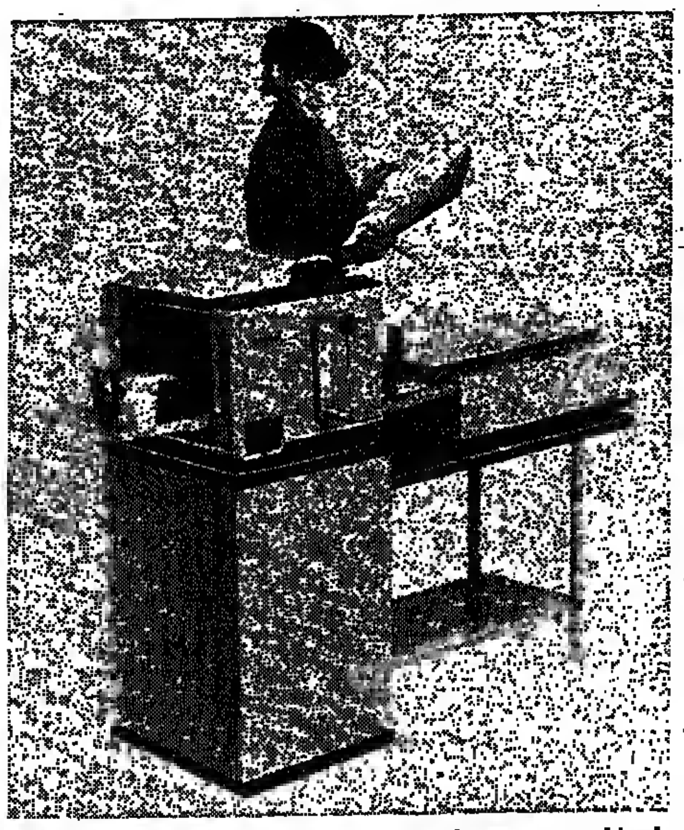
REDIFON COMPUTERS LIMITED

REDIFON COMPUTERS: Sales in 1979 were £14.5m. Part of the Rediffusion group, which turned over £219m in 1979. The group's specialisations include the development of hardware and software for aircraft flight simulation. The computer group's thrust in the office is based on viewdata and its ability to manufacture viewdata sets economically.

PLESSEY: Sales for year ended March, 1980, £751m: pre-tax profits £60.1m. Broadly-based electronics group with around half of sales in telecommunications of which some three-fifths stems from main frame telephone equipment.

Plessey has important interests in office data and control systems: stake in ICL computer group sold at the end of 1978.

Hille International of London have introduced the "Supporto" chair range (above), aimed to combine strength with an outstanding degree of comfort and versatility. The chairs have been designed so as to give the maximum freedom of movement. The shape and adjustability of the back means that fatigue is reduced because the spine can be firmly supported while sitting in almost any position



The fully-automated Gestetner 1566 duplicator is combined with a high-speed facsimile scanner to complete a self-contained FAXIL system. Such systems, says Gestetner, have given an entirely new sophistication to the stencil process Five years ago, 80 per cent of Gestetner's revenue came from stencil products, but by next year 50 per cent of its turnover will come from other products and processes.

Government moves to regain lost ground

FRANCE

GUY DE JONQUIERES

A FEW months ago, M. Jean-Claude Pelissolo, a senior official of the French Industry Ministry, offered this bleak assessment of France's office equipment industry: "It sufficies to say that its production is about FFr 200m for a market attaining nearly FFr 2bn. There is nothing more to add. The French industry has been wiped out."

Despite this parlous state of affairs, the French Government still hopes to revive office equipment manufacturing. It believes that the increasing importance of computer technology and communications in the office can provide French industry with a promising opportunity to make up lost ground.

The Government plans to tackle the problem in two main ways. First, by creating the environment and infrastructure in which business-users will find it worthwhile to take advantage of the most advanced office products and systems on the market; and secondly, by actively supporting the efforts of French maoufacturers to supply these products.

A top priority, carrying the seal of approval of President Giscard d'Estaing himself, is the urgent modernisation and expansion of France'a telecommunications network, until recently one of the most aged and inefficient in Europe. The French PTT (telecommunications administration) has been authorised to spend the equivaleot of about $6bn annually. It has already doubled the number of subscriber lines installed to 15m in the past five years and plans to double this number again by 1992.

As a relatively late starter, France enjoya one advantage which will stand it io good stead over the long term: it ia able to instal the very latest equipment available. When its modernisation programme is complete, it aims to have more digital exchange lines io service than any other European country, providing a system that will be ideal for carrying computerised data, as well as voice communications.

About two years ago it inaugurated a data communications network, called Transpac, employing a technique called packet switching, which allows large volumes of data to be transmitted at relatively low cost. It also proposes to launch a satellite in 1983 to relay aophisticated business communications between offices in different parts of the country.

It is pushing ahead with the development of facsimile transmission services, a form of "electronic mail" which enables documents to be sent across telephone lines. It is also operating a national "video-conferencing" system, which makes it possible for businessmen in distant centres to see as well as talk to each other.

Pioneering

France's vision of the future does not stop at the business customer. It is also pioneering the development of low-cost computer terminals for home use. As well as developing a viewdata service similar to the British Post Office'a Prestel system, the PTT is working on plans to create an electronic telephone directory: the aim is to replace printed directoriea by supplying every telephone subscriber with a simple terminal, free of charge which can retrieve numbers stored in a central computer.

To help French office equipment manufacturers prepare themselves to satisfy the vast demand that this emerging new market is expected to unleash, the Government takes a close band in shaping their industrial and commercial strategies.

The PTT, the Industry Ministry and other state agencies have considerable resources at their disposal to support the development of new products. One criterion (based partly on the Japanese example) is that manufacturers should aim to produce equipment that is suitable for export as well as for the home market.

Under the watchful eye of the French authorities, the industry has undergone a substantial amount of re-organisation in recent months. One of its results is the emergence of CIT-Alcatel, the telecommunications equipment subsidiary of the big Compagnie Générale d'Electricité, as a leading force in the French office equipment industry.

The company already has an impressive record in the development and marketing of telephone switching equipment and claims to have installed about 60 per cent of the world's digital exchange lines. It now intends to use its experience as the basis for its expansion into office products, which will be handled by a newly-created division within the company, trading under the Alcatel brand name.

Its first major diversification step was the acquisition, two years ago, of Friden, the second biggest U.S. mailing equipment manufacturer. It has acquired the European marketing rights for word processors made by AES-Wordplex of Canada, with which it plans to collaborate in developing future products, and it is developing its own facsimile machines.

CIT-Alcatel recognised early on that to succeed on world markets, it would need a strong international marketing network. It also realised that to build up one itself from scratch would be a lengthy and extremely expensive business.

These calculations led it to acquire earlier this year the business machines activities of Roneo Vickers of Britain. While many of Roneo's products were becoming somewhat outdated and were based on decidedly low technology, they came with a sales and distrihution organisation employing about 1,000 people in 10 countries, including the U.S., Canada, Belgium, the Netherlands, Australia and South Africa.

One of CIT-Alcatel's main domestic rivals, Thomson CSF, part of the giant Thomson electronics and electrical group, is also eyeing the office market with interest. Bnt, at present, it claims to be interested more in supplying communications equipment for sophisticated information aystems and advanced technology products than in offering a complete range of office products.

Thomson is seeking, with mixed auccess so far, to build up an international market for minicomputers produced hy its SEMS subsidiary. It has also agreed to co-operate with Xerox of the U.S. on the development of videodisc computer memories, which would enable vast quantities of data to be stored at low cost. Other link-ups between the two companies may follow, possibly in the field of computer peripherals.

Earlier this year, a new force emerged on the French scene in the shape of St.-Gobain-Pont-a-Mousson, the hig industrial group hitherto best known for its manufacture of glass and pipes. Though only peripherally involved itself in electronics products, it has made two major moves to expand its interests in this area.

With the tacit approval of the French Government, St Gobain has acquired the controlling interest in CII-Honeywell Bull, France's main computer company, in which Honeywell of the U.S. has a 47 per cent share. At about the same time, St. Gohain also purchased a 23.3 per ceot stake in Olivetti, the hig Italian business machine

The ultimate objectives of St. Gobain's strategy, and how it will set about managing its new interests, remain unclear. But few helieve that it intends to remain a sleeping partner, and considerable speculatioa surrounds its next moves.

CII has long heen handicapped by having two differeot families of computers in its range, a legacy of the successive mergers out of which it was formed. This split model range is a disadvantage because it makes it difficult for customers who start with a small machine to graduate smoothly to higger computers as their needs grow.

Subsidies

It also helps to explain why CII's share of the Freoch computer market, ahout 27 per cent, is barely half of that enjoyed by International Business Machines, despite Government suhaidies totalling FFr 1.2bn over the past five years and a preferential procurement policy which has worked in its favour.

Some of CII'a more nationalistic critics accuse it of relying far too heavily on products developed or manufactured hy Honeywell in the U.S. It remains to be seen how this reliance on American technology will be reconciled with the French Governmeot's avowed intention to build up a strong and independent electronics industry.

It is also uncertain how CII's product range will mesh in with that of Olivetti. The question has become particularly pertinent since the Italian company agreed, earlier this year, to market in Europe computers made by Hitachi of Japan, which appear to compete with some of CII's own models.

Cutting down on repetitive work

WORD PROCESSING

GEOFFREY CHARLISH

TEXT WAS being stored more than 50 years ago wbcn it was reolised that depressed typewriter keys could he made to punch holes in "pianola" cards or paper tape. Such records from different sources were joined up, selectively, and "played" to make a new document.

"Word processing" is, therefore, not so new. However, the expression itself was unknown until IBM coined it in 1965, with electric typewriter-based systems. In Britain there were few stirrings until the early 1970s and, since then, machines have moved on from paper to magnetic tape, cards and discs. From about 1975, visual display units began to appear.

There are now some 40 suppliers of "dedicated" word processors (that is, those with no other function) in the UK, with many more offerings of microcomputers that can he suitahly programmed. Recently bowever, the dedicated system makers have tended to bestow other abilities on their units—business computing, for example—yet another sign of the general convergence of office electronics.

Mechanism

Systems can be self-contained ("stand elone," in the jargon) or can consist of several keyboard/displays sharing one hig store ("shared logic"). The workstations can have upright "real-paper" format or TV-shaped screens, single line electronic displays ("thin window"), or no display at all—just a typing mechanism.

More than half the installed base of dedicated machines have no screen, but the proportion is now dropping.

It is this wide choice, coupled with the fect that word processing is still something of a mystery in many British offices, that calls for a little clarification. Although the bigger companies employ in-house professionals to make decisions, there is no doubt that thousands of smaller concerns are still wondering what to do.

What point is there in storing typed material at all? Quite often, the answer is "none." For example, in the chairman's or managing director's office where letters and reports seldom repeat themselves, a good electric or perhaps electronic typewriter will suffice.

At the other extreme, where, for example, individually typed sales letters are thought to be desirable, word processing assumes the dimensions of a smell printing department. Tbe letters are perhaps 90 per cent identical, with 10 per cent of variability (names, addresses and possibly other personal data) scattered throughout the letter.

The first step therefore is to try to establish tbe amount of variability in the typed output, determine what cost gain would result from the increased productivity provided by various types of macbine and weigh this against the capital expenditure or rental cost.

What can word processing do? In essence, it electronically stores all the characters in the text as the typist works, in such a way that words, sentences or paragraphs can afterwards he ehanged or moved to suit the various recipients of what is, basically, the same letter. Thus, the typist does not bave to type out the hulk of the text over and over again: the machine will insert the recipient-dedicated passages in tbe right places, closing up or opening out the text automatically.

A logical development—in its nascent stages at the moment—is to dispense with the next task, enveloping and posting, and aend the various versions to the recipients straight out of the electronic memory over a telephone line, in-bouse, nationally or internationally.

The vogue words are "electronic mail." In the beat of new technology one tends to forget, however, that telex can already do this: a number of makers are offering word processing terminals linked to a telex port with appropriate queuing, routing and priority facilities (the so-cslled "store and forward" systems).

Integration

The ultimate solution—the mucb heralded "electronic office"—would integrate the digital signals from the word processor with those derived from other information systems (video, facsimile, external data bases and so on), and allow the intercommunication of all of tbem, regardless of location. But it is early days yet: the concept calls for a fast digital public communications network. There are some equipment offerings that allow it to he done in-house.

What criteria then, determine the choice?

To begin with, those with an existiog mainframe computer should at least examine the prospects of additional software / storage for word processing.

If no machine exists, thought sbould then be given either to acquiring a small one—if other computing tasks exist—or going to a dedicated system. The predominant thinking at the moment seems to be that word processing is an independent office function and likely to remain so until integrated office equipment become commonplace.

Modular

Whether tbe dedicated system is to be stand-alone or shared logic is a matter of work-load; if, at the start, the load is bigb, several VDU/keyboard terminals, working to one processor, might be the answer, particularly if some or all of the users need access to the same documents. But modular stand-alone systems that can he "grown" witb the work-load are available.

Perhaps the most important criterion is the amount of material to be kept "on ice." Large numbers of lengthy documents imply a big memory.

There is a wide choice in stand-alone capacity, from up to 1,000 characters on electronic typewriters (the "bottom end" of word processing) to hard disc which is both capacious (many millions of characters) and fast. In between is the so-called "floppy" (flexible) disc which nowadays very often plugs in to vertical slots next to the screen: they hold about 0.25m characters each. There are also magnetic cards—IBM's forte—holding up to about 10,000 characters.

Dual discs are a worthwhile investment, since text can be moved between them for added convenience and working flexibility.

Is a display necessary? The extent of editiog is the key here: the more there is the barder it becomes without one. The most realistic are those that look like an A4 sheet of paper, having black-on-white cbaracters. Some "bottom-end" machines bave a one-line display on which the last typed (or some otber) line of text can be seen for immediate correction and minor editing tasks.

Tbe "top-end" machines can he very versatile on the screen. The text can be scrolled up and down (like the movie film credits) and sometimes sideways, as well. Right-band margins can he justified (all the words ending on a vertical line, like this printed column); headings automatically centred, selected words displayed in hold, lines numbered for reference.

Generally, a cursor (a sbort line under each character) is moved to various text change points. The new material is then typed and the processor accommodates the new text, re-justifies and so on. Automatic column forming of figures or text is common.

Often, machines can print text while other passages are heing edited on the screen. Some will look for a specific word or passage throughout a text and substitute new material. Some even beve computer-like facilities—for example, they will searcb an address list for, say, Surrey addresses only.

Since prices can range from £1,000 or so to £100,000, clearly the application must he fully defined first.

Hottest

Word processing is now big husiness and even the oil companies have heen attracted into it—Exxon's Vydec, for example. For dedicated and micro-hased systems, the market is worth perhaps £150m to £200m in Britain alone. According to Pedder Associates, the research company, IBM has 30 per cent of the installed hase, due to a lengthy presence. The bottest contention is for the VDU-based stand-alone system — it will almost certainly prevail over the others.

In this league table, AES-Wordplex comes out on top with 21 per cent of installations so far, followed by Data Recall (14 per cent), Vydec (12 per cent), Philips, IBM and DEC. About a third of the installed base is shared hy the 35 or so other makers. The figures may not, of course, reflect current relative sales positions.

Useful publications include: Word Processors in the UK, Computer Installation Series (1979-80), Pedder Associates, London (01 633 0866); The International Word Processing Report (annually), Geyer-McAllister International, Richmond, Surrey (01 948 1814), and tbe monthly magazine, "Whet to Buy for Business," London (01 584 1272).

The Olivetti TES-401 desk-top word processing system (right); an example of how the transilion from electronic typewriter to word processing con be made without radical change, either in personnel or in basic physical appearance of equipment. British Olivetti claims to head the unit sales league, with 15 per cent of the UK market for atand-alone, single-line, part-page word processors.

Other major European participants in the business equipment market

SIEMENS

SIEMENS: Sales for years ended September, 1979, DM 28bn, net profits, DM 688m. Fourth largest electrical group in the world and number two (behind Philips) in Europe. Half of sales arise outside Germany, and of the total around a third stems from telecommunications and data processing. Last published balance sheet contained cash of DM 11bn, roughly equal to the stock market value of group.

MATRA: Sales for 1979, FFrs 4bn, net profits FFrs 200m. Major defence and aerospace group which has recently diversified into telecommunications, data processing and the watch business. Some three-quarters of sales arise outside France, and more than half now stems from non-defence operations. One of the fastest rising shares on the Paris bourse in recent years.

olivetti

OLIVETTI: Sales in 1979 were L1,852bn. Big electronics and office equipment group which has recently shown recovery from several poor years; 23.3 per cent of its stock is owned by the French group, Saint Gobain-Pont-a-Mousson.

One of the world's major vendors of small computer systems, its office strategy is unclear, although it has begun to market large Japanese computers and has bought the U.S. automatic bank teller company, Docutel.

SAINT-GOBAIN-PONT -A-MOUSSON

SAINT-GOBAIN-PONT-à-MOUSSON: 1979 revenues: FFrs 35.5bn. Big French glass and piping group which has recently diversified into electronic technology. Owns 51 per cent of Cie des Machines Bull, which controls CII-Honeywell Bull, France's biggest computer manufacturer. Honeywell of the U.S. owns 47 per cent. Saint-Gobain also acquired 23.3 per cent of Olivetti of Italy earlier this year and is majority partner with National Semiconductor of U.S. in French chip-making project.

PHILIPS

PHILIPS: 1979 worldwide revenues: Fl 33.2bn. Farflung Dutch-based group with operations in more than 60 countries. Products include telecommunications equipment, industrial supplies, business machines, consumer electronics, domestic appliances, lighting, batteries and pharmaceuticals. Europe's biggest semi-conductor manufacturer. Owns Mullard and Pye in Britain. Recently set up Philips Business Systems in UK to market a wide range of office products including mini-computers, word processors, dictating equipment, terminals and private exchanges. In the U.S. its affiliate, North American Philips, owned by Philips shareholders, has been expanding its consumer electronics operations recently.

CII Honeywell Bull

CII HONEYWELL BULL: Sales for 1979 FFrs 5bn. Largest computer manufacturer in France, supported until recently by heavy government aid. Parentage includes U.S. computer group, Honeywell, as well as major French interests, including Saint-Gobain-Pont-a-Mousson. Component shortages left 1980, first half, in red, but recent predictions from CII suggest that a profit can be returned for 1980 as a whole.

CIT Alcatel

CIT ALCATEL: 1979 revenues: FFrs 3.8bn. Part of French Compagnie Générale d'Electricité. Impressive record in telecommunications equipment. Claims to have installed more than 60 per cent of world's digital exchange lines. Now moving aggressively into office products under Alcatel brand name. Owns Friden, second largest U.S. mailing equipment company and acquired earlier this year business machines activities of Roneo of Britain.

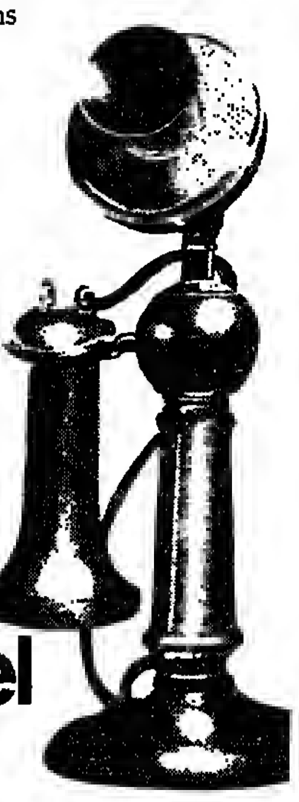
TA TRIUMPH-ADLER

TRIUMPH-ADLER: Sales for 1979, DM 1.2bn: net profits at parent company level, DM 10m. Broadly based office equipment group, owned by the Volkswagen motor group. Recent years heve seen diversification away from typewriters to an increasingly ambitious range of electronics and data processing products. Has the backing of VW's powerful financial muscle.

NIXDORF COMPUTER

NIXDORF: Sales for 1979, DM 1.25bn: net income DM 85m. Germany's leading producer of small business computers, with a 30 per cent share of the local market.

Founded, and still controlled, by the Nixdorf family, but could become a public company some time in 1982 Deutsche Bank took a 25 per cent shareholding, and pumped in DM 200m in cash, in 1978.



Enter the miraculous microchip

SMALLER COMPUTERS

GUY DE JONQUIERES

ABOUT two years ago, a team of International Business Machioe eogioeers set themselves a remarkable challenge. They undertook to reproduce the central processor — the "hrain" — of one of the company's most popular big computers, the System 370, oo a single microchip.

The processor consists of more than 45,000 componeots, a cluster of printed circuit boards and several miles of wiring. It is bulky eoough to be housed in a cabinet of its own. Yet the IBM team maoaged to transfer all its complex circuitry onto a sliver of silicon measuring only 7 mm square, roughly one tenth the size of a British postage stamp.

IBM does not propose, for the momeot at least, to put System 370 processors on silicon, commercially. But its success in building in the laboratory what may be the most densely packed iotegrated circuit in the world, illustrates vividly how far the technique of miniaturising electronics has come.

Performance

Advances in seoiconductor technology and the accompanying fall io the price of components have had their most visible impact so far in the market for smaller computers. Indeed, the products competing in that fast-growing market are developing so quickly that it is hecoming increasingly bard to say, with any precisioo, what a small computer is or to describe the limits to its performaoce.

Only a decade or so ago, the definition was fairly straightforward. Small computers were invariably "mioicomputers," less powerful and cheaper versions of big "mainframe" computers. Unlike maiofraoies, which were inteoded to be general-purpose machines capable of a wide variety of functions, early minis were designed to specialise in particular tasks, notably scientific and technical calculations and industrial process cootrol.

But today, minis are to be found in a wide range of applications. Moreover, machines emerging from traditional American minicomputer companies, such as Digital, Data General and Hewlett-Packard, now rival in performance medium-sized computers made by mainframe manufacturers such as IBM, Burroughs, or Sperry Univac. Digital's top-of-the-line VAX is as powerful as IBM's new 4300 series small mainframe.

The mini-makers' upwards thrust is partly in reaction to the growing challenge which their cheaper prodocts are facing from micro-computers, whose heart is a collection of inexpensive standard "chips" mounted on a printed circuit board. The micros have largely taken over the role which minicomputers played a few years ago of hringing data-processing to a much wider circle of users.

Companies such as Commodore, Apple and Tandy io the U.S., as well as a growing band of Japanese manufacturers like Matsusbita and Sharp, have fouod a ready market for desk-top machines which offer as much performance as a minicomputer costing ten times as much ooly a decade ago. Micro-computers also are used as the basis for many smaller word-processors sold today.

In their most basic form, micro-computers, equipped with a display screen and keyboard, can be bought for as little as £500. But an owner who wants his machine to be more than just a playthiog will probably want to invest another £2,000 or so in a high quality printer, a disc storage unit for back-up memory and a library of pre-written programmes (software).

A system like this should be able to carry out a number of common business fuoctions such as payrolls, accountiog or stock control, as well as some technical and scientific calculations. Increasingly, micro-computers which started out as status symbols or toys for the personal use of rich enthusiasts are being installed for business aod professional applications.

Ioteroational Data Corporation of Waltham, Massachusetts, in the U.S., believes that tbe market for micro-computers is only now heginning to hit its stride. It forecasts that the number of machines in use worldwide will soar to more than 5m by 1984, teo times tbe number installed at the end of last year. It estimates that about 60 per cent of the total will be in use in tbe U.S.

But IDC also foresees a shake-out taking place aoiong suppliers of oiicro-computers within the next three years. It believes that in the U.S., at least, the long-term survivors will be those companies with a broad product range which can offer a line of compatible computers stretching from desk top micros up to powerful systems costiog £250,000 or more.

IDC points out that the continuing decline io the cost of electronic technology is failing to offset suppliers' rising overbeads. Indeed, the fall in prices of micro-computers accentuates the problem, because a supplier's marketing costs absorb an increasingly large proportion of the revenues from each unit sold. Therefore, those suppliers who can offer micros as part of a broader range of office products and who can therefore spread their overheads are likely to be the best-placed in the long run.

Tbe third key to survival is software. Though the number of programmes that can be purchased off tbe shelf for micro-computers is constantly expanding, they are of variable quality. Moreover, most programmes are for fairly general tasks. The user who waots to adapt his microcomputer to a specialised application must often either write his own programme (a laborious affair, requiring a good deal of skill), or employ an outside programmer (whicb can be expensive).

Experience

For these reasons, the better-established office equipment companies are not too worried by the onslaught of the bargain-basement micros. Manufacturers such as Wang in the U.S., Olivetti of Italy, Triumph-Adler of Germany or the Dutcb-owned Philips group bave both extensive marketing networks aod considerable experience of their customers' needs.

Most of the old-established office products manufacturers were making equipmeot like accountiog machines, typewriters or calculators long before the computer hoom began in the 1960s. The successful ones have adapted existing products and systems to take advantage of developments in technology. Many of the manufactorers of cbeaper, mass-market micros, by contrast, entered the market through the technology and are now tryinc to acquire the experience of customer requirements that will enable them to offer the rigbt types of software.

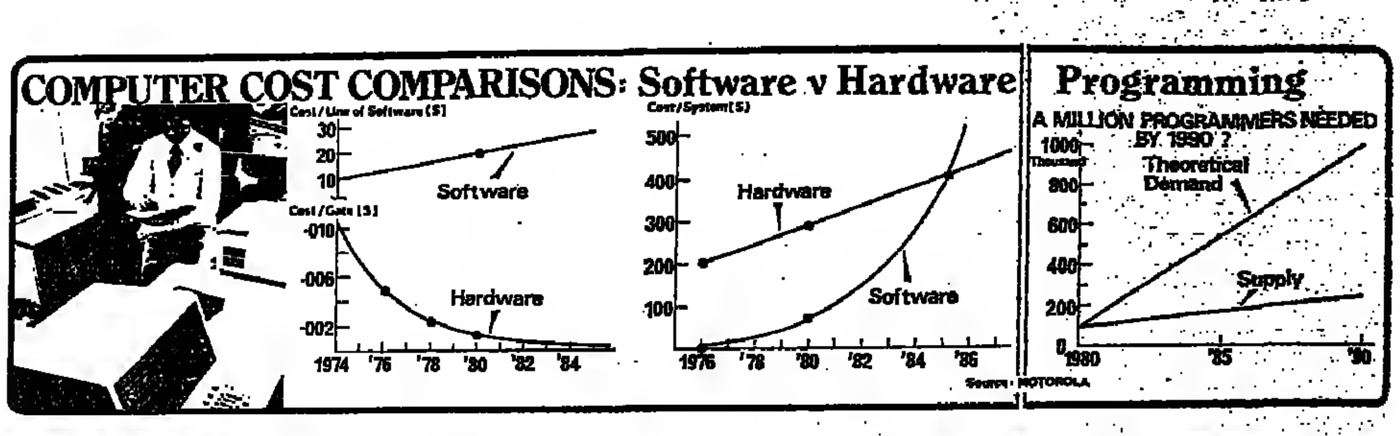
Ironically, while the low cost of micros has brought them within reach of an ever larger number of users, they are more difficult to programme than large computers. This is partly because their limited memory capacity does not allow enough space to store the information required for simplified programming languages.

Some progress has been made in developing easier programming techniques for micro-computers. A language "package" called VisiCalc has been developed to help users without any data-processing expertise and CAP-CPP, a leading British software house, has designed a version of the commonly-used programming language, COBOL, specially for use with micros.

But tbe most vigorous and radical attack on the problem is being mounted by U.S. manufacturers of the mass-produced integrated circuits used in micro-computers. Three of the leading firms, Texas Instruments, Motorola and Intel, bave all announced that they are working on plans to build in to their chips during manufacture the nucleus of basic operatiog software required to make them fuoction.

This "packaged software" approach would make it mucb easier to write the applications programmes needed for specific tasks. It would also hring a step closer tbe possibility of creating a computer as powerful as a small mainframe by mounting a selection of micro-processor and memory cbips on a printed circuit board.

The manufacturers say that if they succeed, they will go a long way to solving the shortage of skilled programmers that is forecast for tbe years ahead. They also are likely to hring about the most profound upheaval yet in the rapidly changing pattern of the computer market and of the industry wbicb supplies it.



The LogAbax 2500 small business computer (above) which, it is claimed, brings a new dimension to office management. For less than £50 per week, the system can handle all the invoicing, sales analysis, ledgers, stock reporting, payroll and VAT functions of a normal business. The makers add that the LX2500 "is so simple to use that no special experience is necessary."

Right: the new ITT 3451 intelligent terminal from ITT Business Systems is IBM 3740-compatible and can be programmed in business BASIC. In the picture, an operator is inserting a diskette, prior to data-entry. The high-performance diskette drive used by the ITT 3451 speeds up the search, copy and insert functions, reducing operator waiting time, and allowing greater data throughput

MARKET FORECAST FOR INFORMATION PROCESSING SERVICES

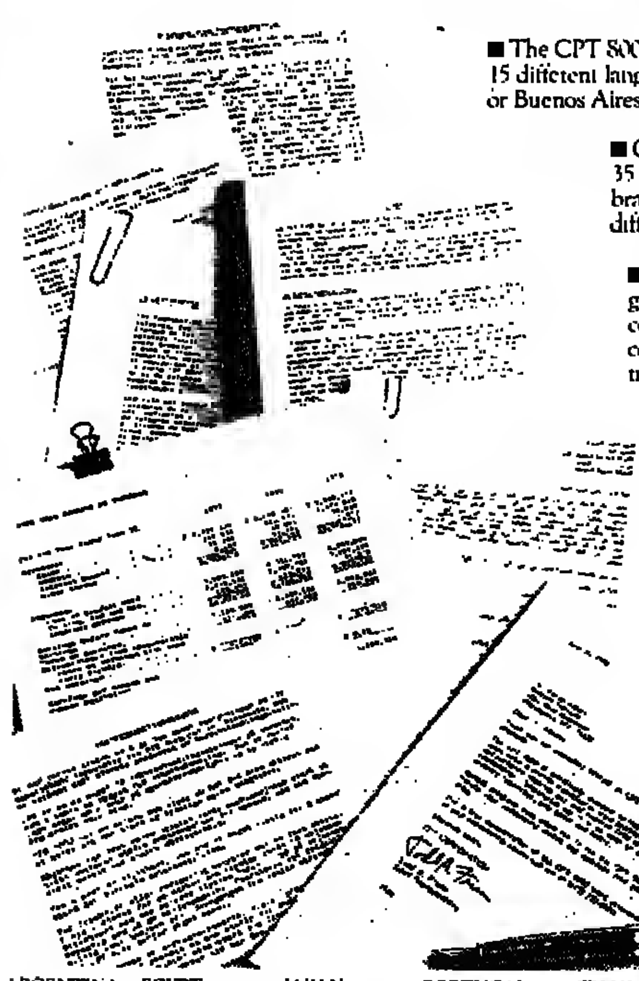
Office automation system	1978 market $m	1979 market estimate $m	1984 market potential $m	1979-1984 average annual growth rate %
Electronic mail*	20	26	105	32
Information retrieval	2	4	45	63
Data base services	1	2	28	68
Com. services	2	3	50	72
Other**	Negligible	2	54	94
Total	25	37	282	50

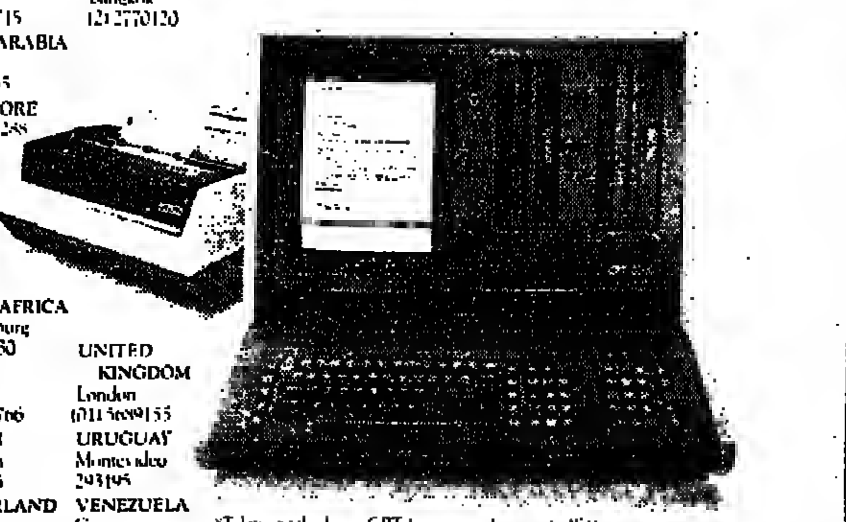
The above figures include only those applications which apply to the office functions. Traditional EDP applications which apply to operations, finance, etc., are excluded.

** Does not include Western Union's "Mailgram" (estimated at $51m in 1978), and facsimile.*

*** Includes mail list management, OCR services, source document micro-filming, correspondence, control, word processing and photocomposition/phototypesetting.*

Source: Input.





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Some of the major participants in the business equipment market in N. America

IBM

INTERNATIONAL BUSINESS MACHINES: 1979 worldwide revenues: $22.8bn. World's biggest computer manufacturer, accounting for more than half all larger computers installed by value. Offers comprehensive office product range spanning typewriters, word processors, copiers, PABXs, dictating machines, printers and terminals. Despite little past experience in telecommunications, IBM is likely to be a major force on U.S. business communications market in future. Major partner in project to provide sophisticated business communications by satellite.

IBM's profits last year suffered from switch by many customers to computer leasing from outright purchase. This, plus heavy investment in new products designed to fend off increasingly voracious U.S. and Japanese competitors, has caused it to borrow heavily.

EXXON

EXXON ENTERPRISES: Set up by the U.S. oil giant, Exxon (1979 revenues: $84.8bn) to develop new operations in office products. Has invested $200m mainly in small companies making typewriters, word processors, facsimile equipment, data transmission and networking devices; talking computers and semiconductors. Many products are innovative, though it is not yet clear how Exxon will knit the various activities together into a cohesive strategy—but few doubt that it has the necessary financial resources.

northern telecom

NORTHERN TELECOM: Sales for 1979, C$1.9bn; net income, C$97.1m. The largest telecommunications group in Canada and number two in North America, after A.T. and T.

Northern Telecom is owned 55 per cent by Bell Canada.

Entered office electronics business as recently as 1978 through a number of computer acquisitions.

WANG

WANG LABORATORIES: Sales for year ended June, 1980, $543m: net income $52m. Leading producer of small computers and word processing systems, founded in 1951. Lost money in Europe last year despite a contribution to sales now approaching 25 per cent. Otherwise, successful company in a market dominated by major groupings.

XEROX

XEROX: 1979 revenues: $7bn; American copier giant, major shareholder in Rank-Xerox. Its dominance of the world copier market has been increasingly challenged by Japanese companies, though it is fighting back vigorously with new products and increased marketing effort. Xerox has diversified its activities in recent years to prepare for broad attack on the office systems market. Acquisitions include Western Union International and computer peripherals manufacturers in the U.S. Involved with Intel and Digital Equipment in developing Ethernet office communications network and collaborating with Thomson of France on videodiscs for data storage.

Burroughs

BURROUGHS: Sales for 1979, $2.8bn: net income, $306m. A leading U.S. producer of data processing equipment and computer systems: substantial interests in business forms.

Computer systems account for 62 per cent of Burroughs' sales with two-thirds of this in large and medium-sized products. Sales outside the U.S. contribute 45 per cent of sales and 33 per cent of profits.

DATAPOINT

DATAPOINT: Sales in 1979 were U.S.$318m. One of the originators of the idea of distributed processing (which it calls dispersed processing), Datapoint has a sound reputation for reliable minicomputers. The company is basing its integrated office on its attached resource computer (ARC). Distributed in the UK by Ventek of Wembley.

ITT

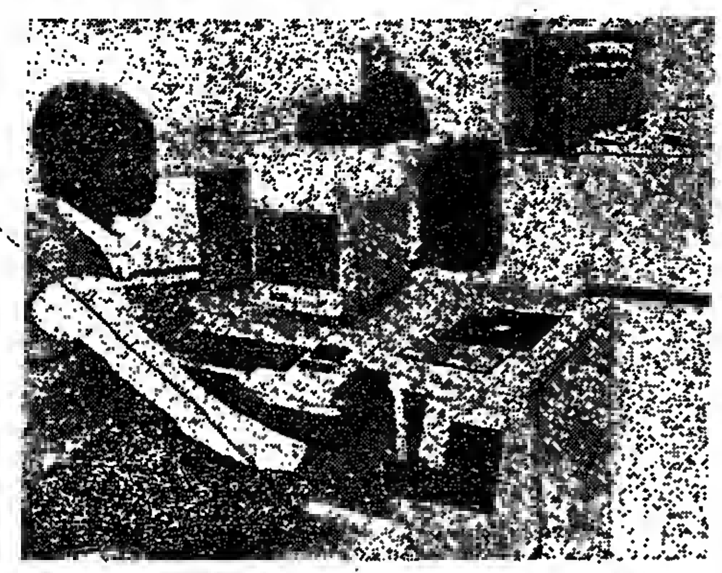
INTERNATIONAL TELEPHONE AND TELEGRAPH: 1979 worldwide revenues: $22bn. Diversified American multinational company with activities in telecommunications, electronics, engineering, consumer products and services, natural resources and insurance and finance. Management responsibility for different divisions of the group, which does business in more than 80 countries, has been decentralised in recent years with increasing emphasis on non-consumer products.

As a major supplier of telephone switching equipment it is developing an advanced digital exchange, System 12, while its UK subsidiary, Standard Telephone and Cables, is involved in Post Office rival System X programme. Recently warned that it might sell French telecoms subsidiary if France did not order System 12, which it als ohopes to sell to AT and T in U.S. Business equipment range includes PABXs, printers, telex machines and computer peripherals.

AMERICAN TELEPHONE AND TELEGRAPH: Sales for 1979 $45.4bn: net income $5.7bn. Largest telephone group in the world. Parent company for the Bell System which operates through 21 subsidiaries and controls nearly four out of every five telephones in the U.S. Faces sterner competition from now on following recent move to deregulate the U.S. telephone industry.

Honeywell

HONEYWELL: Sales for 1979, $4.2bn; net income $240m. Aerospace and missile group with industrial and environmental protection interests. A wide range of information systems account for roughly a third of both sales and earnings following rapid expansion in this field in recent years.



IBM's Office System 6 is a range of machines combining a visual display, ink jet printing, magnetic cards and diskettes as input and output media, with sophisticated communications capabilities. The IBM 6/450 (shown here) has all the system components; it can be used to keyboard, process and print text or records

Special capabilities still fill a need

MAINFRAMES

ALAN CANE

HISTORY, in the data processing business, repeats itself. The same questions come up again and again. Over the past few years, controversy has centred on the role of the mainframe computer in data processing. Has it a future Is it simply a dinosaur to be eliminated in the evolution of computing by the fleet, cheap little minicomputers? Or is it the mainstay of the operation, around which all the rest of the computer business turns.

Now the same sequence of questions is being asked about the mainframe in the evolution of the electronic office.

The idea of the "electronic office," the "office of the future" the "paperless office," call it what you will (the very latest jargon seems to be the "integrated, electronic office," or IEO), was possible from the very early days of computing—but the price was prohibitive.

As the cost of computing fell, in real terms, with the introduction of the microprocessor and its associated microcircuitry (controllers, memory and switches), so the theory became reality.

And that, in turn, meant that it was the mini and micro computer manufacturers who made the running in the development of office automation.

Reality

Thus, it was companies such as Wang, Four Phase, Datapoint, Xerox and Intel which were crying their wares in the market place at the very start—and, indeed, it is these companies which are still making the running now.

Where then is the mainframe in all this activity? First of it is worth, in these perilous times when semiconductor manufacturers delight in managing to implement an entire very large IBM system on a single quarter inch square silicon chip, to define a mainframe. Worthwhile, but probably impossible. The Computer User's Year Book has given up differentiating between mainframes and minis and now simply lists central processors. The best definition probably turns on the amount of computing power available.

At present, office products tend to be a little primitive. There are word processors, message switching systems and data storage systems but none of these quite matches up to what is required of the truly electronic office. As Dr. Douglas Eyeions, director general of the Computing Services Association put it: "There is justifiabla disappointment among customers with the products available—after all, it is very unlikely that any one piece of equipment will solve all a customer's problems."

But if the mini and microcomputer manufacturers are making the running, what response is there from the traditional mainframe manufacturers? Mr. Michaal Edmiston, UK marketing manager for information systems for International Computers, sees a need to divide facilities for the office into four levels. Those used at corporate level, those used in administrative units, those used at the level of the office and those used at home.

For home use, there seems no better alternative than viewdata, at present.

ICL is already associated with the Thorn electrical group in the development of Thorntel, a private viewdata system which runs on ICL's bigger computers. According to Mr. Edmiston, the Thorntel system is already under test at six pilot sites.

In the office he sees the use of ICL's word processor, the 7700, which operates as a standalone system—that is it can be operated separately from a mainframe computer — but which also involves the concept of shared logic. That means that several separate word processing stations can operate from the same central processing unit.

Mr. Edmiston foresees a situation where each administrative unit would have access to an ICL Me 29 (ICL's new and popular small mainframe) to act as a node for office communications, word and text processing and data processing.

He points out that some firms are already installing Me 29s, not ta act as data processors, but to handle files and other office administration functions.

What is probably not clear is the actual amount of processing power necessary to handle two of the most important facets of the "electronic office," first, the office database and second, the multifunction work station.

There are, again, fairly advanced concepts in a world where very few businesses have anything like an effective corporate database and where "work stations" tend to word processors with perhaps the facility to receive viewdata information.

Concepts

According to a study carried out by Professor Georga Coulouris of Queen Mary College, London University (and which incidentally led to the formation of Nexos, the National Enterprise Board office equipment subsidiary), the work station of the future will have very specific attributes.

It will be, he argued, "an electronic replacement for the office desk, the typewriter and the filing cabinet. Because the work station incorporates information processing power in the form of a personal computer system, it will be able to perform automatically many of the tasks that involve manual effort at present. In principle, these include almost any task involving the storage, processing manipulation or transformation of information."

Professor Coulouris' vision involves some concepts that are far removed from anything seen in so-called office automation systems at present.

He sees, for example, the whole of the flat surface of the present executive's desk being replaced by a large television screen on which are projected images of all the papers which currently inhabit that space. Diaries, memoranda, working papers, perhaps stored one on top of another.

In Professor Coulouris's electronic office it would be possible for the executive to write on the papers on his screen, using, perhaps, a light pen, shuffle them around, file them for future use, or send them to other colleagues in the organisation.

The archival store is another significant part of his vision: "Since the work station will hold only current information, the archive store takes on most of the role currently performed by filing cabinet storage. It also provides a permanent record for legal and audit purposes."

It must ultimately have the capacity to hold all the information stored at present in conventional files. Its capacity must, therefore, be very large — say 1,000m pages or 4,000,000m characters. No suitable technology exists at present.

It requires a very powerful computer to handle this kind of processing task. Mr. Edmiston points out that the problem of handling images on the screen is 100 times more complex than simply sending characters down a communications line to a visual display terminal.

Facets

It is not surprising that Nexos selected the Delta computer, made by the Delphi Corporation, as the heart of its office architecture. The Delta is one of the most powerful communications processors yet built.

It is seen by Nexos, a National Enterprise Board company, set up to cater for the electronic office as the cornerstone of its philosophy. It is exceedingly powerful — it can handla up to 240 million instructions a second, through a network of between eight and 32 processors. The amount of information it can control is in excess of 80m bits (binary digits or individual electronic events), a aecond.

The Delta, is, of course, not a conventional mainframe. It is a very large and expensive electronic switchboard. Mr. Muir Moffat, managing director of Nexos, has pointed out to those who query the size and power of the Delta for a conventional office, that nobody would think twice about spending that kind of money on a new conventional telephone switchboard. The Delta will be able to recognise voice commands, integrate text and voice data banks and carry out message-switching, among a host of other "intelligent" functions.

Just as in data processing, the mainframe may be a dinosaur but it will not die out. The need for its special capabilities is simply too great.

All set for a boom in the '80s

DATA COMMUNICATIONS

GUY DE JONQUIERES

DATA COMMUNICATIONS, the technique of transmitting computerised information from one point to another, is set to boom during the 1980s. The expected rapid growth will mean an expansion of the *information and* communications services available to business and will bring a step closer the realisation of the electronic office.

One way to measure the growth of data communications is by the number of computer terminals installed. According to the latest Eurodata survey commissioned by European telecommunications administrations (*PTTs*), the number of terminals connected to public networks in Europe will increase almost sixfold between now and 1987 to 4m units from 625,000 units today.

In the U.S., there are already four times as many terminals in use as in Europe, reflecting both the Americans' lead in computerisation and their relatively cheap telecommunications tariffs. But in spite of starting from a considerably higher base, the U.S. is expected still to see a 20 per cent annual growth in the number of installed terminals over the next decade.

Expansion

Behind this projected expansion lies the confluence of several powerful forces. Steady decreases in the cost of microelectronics components have made it possible to manufacture terminals very cheaply. In France, the PTT believes that it will be possible to make terminals designed to search for telephone numbers stored in a central computerised directory for less than £60 each. It plans to distribute one free to every French telephone subscriber in place of printed directories.

The progressive fusion of computer and communications technology, which has led to the development of digital telephone switching and transmission, has simplified the technical task of carrying data and voice on the same networks. And recently, changes in regulatory policies have started to erode the political obstacles standing in the way of the commercial exploitation of the latest developments in technology.

The most dramatic move taken in this direction so far has been the decision by the U.S. Federal Communications Commission to open up to all-comers the market for so-called "value added" services, which has hitherto been strictly regulated. Such services, which combine the processing and transmission of data, have until now been offered only on a fairly limited scale in the U.S. by computer bureaux like Tymnet and Graphnet.

The FCC's decision is expected to stimulate the rapid growth of many new types of service, such as electronic funds transfer and billing, electronic mail and integrated voice and data communications networks. Though these will initially be aimed mainly at business customers, they can be expected to spread swiftly to household and residential users.

The potential scale of this new market may be judged by the number of American corporations preparing to enter it and the size of the resources which they plan to commit. American Telephone and Telegraph, which has a virtual monopoly of the U.S. telephone system but has been prohibited from offering "value added" services until now, is setting up a new company to exploit the business. Nicknamed "Baby *Bell*," it has been endowed with a capitalisation of $10bn.

International Business Machines, the world's biggest computer manufacturer, has set its sights on the market too. As well as offering a comprehensive range of business equipment and terminals, it is a partner in Satellite Business Systems, which plans to provide highly sophisticated business communications services. Xerox is also limbering up for the fray and is working on a rival communications project called Xten.

In Europe, things are moving considerably more slowly. Though the British Government is examining the possibility of opening the national telecommunications network to private suppliers of "value added services," PTTs in most other countries appear determined to keep a firm grip on their monopolies and resist any intrusion by the private sector.

The recent case of I.P. Sharp, a Toronto-based company which operates an extensive international computer bureau network, is symptomatic of the dog-in-the-manger attitude of which the PTTs are often accused. Sharp undertakes to process at central computers data fed in by its customers at remote terminals. In addition, it has also offered its 700 European customers a facility to send messages to each other electronically across its network. But under strong pressure from the PTTs, the Canadian company has been forced to end this extra service from the beginning of next year.

At present, the PTTs offer no comparable Europe-wide electronic mail services themselves, though several are planning to introduce national networks over the next few years. They apparently feared that Sharp was depriving them of revenue by carrying on its leased circuits messages which would otherwise have been sent on public telecommunications networks via telex or telephone.

The PTTs' determination to exclude private competition which threatens their monopolies is not too surprising in view of the sums of money involved. Data communications is still only 5 per cent of their business but earns them about $2bn a year. They expect this sum to rise to about $8bn annually by 1987. Moreover, most of the traffic will be carried on their already profitable long-distance lines.

At present, most data communications traffic is transmitted either on private circuits *leased permanently from* the PTTs by private users or, where a customer's needs are less extensive, on the public switched telephone network. But increasingly, European PTTs are introducing new networks to handle data communications using a technique called packet switching.

Packet system

Data are divided into "packets," each containing typically 128 binary units (bits), including the coded address of the final destination. *A computerised control system* then works out the fastest route and dispatches the packets via a series of nodes, or connecting points in the network. Each packet containing part of a given message may travel a different route, but the system ensures that they are assembled in the correct order at their destination.

Provided the tariffs are set at a reasonable level, packet switching offers advantages to both the PTTs and their customers. Because packets are stored momentarily at each node before being forwarded on the next leg of their journey, *an open line is not required all* the way between sender and recipient. This means that more traffic can be carried and that users can be charged on the basis of the volume of data sent, not of the distance travelled.

Packet-switched networks can carry voice as well as data, and transmission speeds can be varied according to the type of service required. Transpac, the French PTT network which has been operating since 1978, offers speeds of between 50 bits and 48,000 bits per second.

The EEC is also operating its own packet-switched network, Euronet-Diane, which provides access to scientific and technical data bases throughout the Community. The European Commission had hoped that it would provide the basis for a single Europe-wide network, but national PTTs (whose activities fall outside the jurisdiction of the Rome Treaty) have pressed ahead with their own individual schemes regardless.

As a result, each of the national networks differs technically from the others. Some progress has been made in negotiating common international standards designed to allow data to flow between networks, but how effective these will be in practice remains to be seen.

Perhaps the most exciting *new development* in business communications now in prospect is the advent of services using satellites. These will permit voice and data communications, together *with* television transmission, to be relayed directly between distant points. One obvious new *application is tele-conferencing*, which will allow businessmen in different cities to see as well as talk to each other.

Texas Instruments, the *big* American semi-conductor manufacturer, has for some time been using a satellite system to link its different offices and plants scattered around the world. In the U.S., the commercial communications services planned by IBM and Xerox will both involve satellite links. In Europe, France plans to launch a telecommunications satellite in 1983, while British Telecom is studying a similar proposal.

As well as being able to carry a wide variety of services, satellites are also an easily accessible medium. Communications can be transmitted and received between users via dish aerials mounted on rooftops, without recourse to the telephone network. Though these aerials are likely to be quite expensive at first, volume production should bring about a significant drop in cost over time.

For PTTs, this poses an obvious problem, since it is considerably harder to enforce a monopoly over communications that are transmitted through the airwaves than over those that are carried on telephone lines. Moreover, satellites transmit over wide areas, so that their coverage cannot easily be restricted within national boundaries.

Intentions

It is not clear how far plans by PTT to launch telecommunications satellites are intended as a pre-emptive move in anticipation of private sector competition, or whether they would have been put into effect anyway. According to Dr. Louis Ponzin of the French Institut de Recherche d'Informatique et d'Automatique: "New communication services introduced by PTTs are often simple counteractions, which were thought necessary to protect the monopoly."

But it does seem likely that the PTTs monopolies face a tougher test than at any time in the past. The next few years will tell whether the regulating authorities will succeed in keeping control over the provision of new types of communication —and thereby perhaps *slow* down their general introduction —or whether the sheer speed of technological development will vitiate the attempts by the PTTs to impose national restrictions on its application.

Up to 3,500 messages a day are handled by the ITT 6100 ADX message-switching system, installed by the Esso Petroleum Company at its London headquarters to speed communication with Esso facilities in the UK and abroad. Messages can be rapidly edited or corrected on the screen and no dialling is required—the system takes over this greatest-of-all telex operator chores

Wider applications in the use of computers

INTERNAL NETWORKS

JASON CRISP

FOR YEARS the much heralded electronic office of the future has remained doggedly almost exactly a decade away. But a significant change in the use of computers may indicate that, in large companies at least, the vision of every manager having his or her own communicating terminal may actually be beginning to happen, albeit somewhat slowly.

The change is that the computer is emerging from the closet of the data processing room, into the main stream of the office. According to the manufacturers, the professional staff in organisations are increasingly using computers themselves and they note that once that happens managers too become much more interested in having access to information which is or could be available.

Efficiency

Most companies generate vast quantities of information in many different guises which swims around the organisation by a variety of means. A number of companies are awakening to the efficiencies and productivity which can be gained from both the managerial and professional staff if the information systems can be rationalised and co-ordinated.

To some degree or another any organisation will have one or more form of electronic communications network. Data processing has resulted in a number of local communications networks. Word processing is, very slowly, beginning to establish a new series of networks, and of course, the most pervasive network is inevitably the telephone and telex system.

There is much activity in both computer and telecommunications industries to try and bring together as many of these disparate and sometimes haphazard networks into fewer and more efficient ones. It is likely to be quite some time before the average manager sees the benefit.

Why not put all companies word processors, facsimile machines, computer terminals, telex and so on, on to one network as it would be more efficient and much cheaper? And, so the thinking goes, why not give each manager a terminal on which memos and letters can be sent and stored in electronic form as it would increase the speed of communication and be much more efficient?

A number of possible solutions are appearing from two sources: the computer and telecommunications industries.

A wide range of local networks have been developed by the computer industry which work in a variety of ways. Although these are fine for a computer system they are limited because they generally only work with the proprietary manufacturer's equipment. A significant trend emerging is for networks to be designed to link any manufacturers' equipment.

The solutions to designing an internal electronic communications network come, broadly speaking, from two very different directions. One is the ring approach, of which the best known approach is Ethernet, which has been developed by Xerox, Digital Equipment, the minicomputer manufacturer, and Intel the major semi-conductor company.

Ethernet is a ring of co-axial cable without any switching device at all. All the information from and to all the terminals, printers, word processors and so on within the office flows past each machine but each one is capable of recognising the electronic parcel of information which has been addressed to it and can pluck it off the wire.

Benefits

The advantages of a system like Ethernet is that it is reasonably cheap and simple—it is largely a question of running the co-axial cable round a building—and it is fast, but it is not designed to carry voice.

There are nearly 50 different companies offering local data networks, almost all of which are more hierarchical than Ethernet's open ring. There is, however, a move for computer manufacturers to make networks much more flexible; IBM is modifying its centralised and hierarchical Systems Network Architecture, for example.

The leading British answer which has been attracting considerable interest is the "Cambridge Ring" developed by the Computer Laboratory at Cambridge University and which is to be sold by Logica, the computer software company in which the National Enterprise Board has a stake.

The major rival solution comes from the telecommunications companies with digital private exchanges which can route data as well as telephone calls. Information from terminal comes in to the exchange and is switched to the computer or another terminal. In the UK, for instance, Plessey and Telephone Rentals market a digital exchange made by Rolm, as does IBM (the first to get Post Office approval).

There are two problems in using conventional digital PABXs: one is that transmission speeds are much slower than on a computer network, and the second is that they may not be powerful enough to handle a very large number of pieces of electronics equipment communicating with each other.

One very powerful communications system which can combine voice and data transmission is being developed by Delphi, a subsidiary of Exxon. The European manufacturing and marketing rights of Delphi's Delta are held by Nexos, the office equipment subsidiary of the National Enterprise Board. Delta's power is extraordinary. It can have up to 26 processors, each one equivalent to a largish IBM computer and capable of 7½m instructions every second. As Mr. Chris Ellis, director of strategy at Nexos remarks in the idiom of the Rolls-Royce spokesman: "The power is adequate."

As a trial, the first Delta has been running for three years as a telephone answering service in Los Angeles, connected to nine large telephone exchanges. When a *subscriber does not* answer, the call is routed to one of the Delta operators who is told what company name to give, on a video screen and is then instructed by the computer how to handle the call in detail. Even though the operator may never have heard of the company she is answering on behalf of, by working with Delta, she can be more effective than the secretary of the person being called, says Mr. Ellis.

Delta 2, which Nexos hopes may be available in a year's time in this country, will first be marketed as just an answering service within large companies or groups of smaller ones. However, Delta can be stepped up into a fully integrated electronics communications system which would link all telephones, computers, word processors, facsimile machines, data storage and so on.

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The new Xerox 860, a flexible and sophisticated information processing system. The 860 system includes a number of aids to productivity in basic text processing as well as a range of optional software packages. Xerox also offer a word processing software package with the system

Wang's powerful word processing System 30 uses a 10 megabyte hard disk for speedy performance and storage capacity for up to 4,000 pages of text. The system can accommodate up to 14 peripheral devices, such as workstations, printers, telecommunications or interfaces for OCR and photocomposition

Consultants' key role in providing expert advice

COMPUTER SERVICES

ALAN CANE

THE OFFICE is ripe for automation. It could be likened to a maritime catastrophe with, on the one hand, a ravenous shark representing the way that office costs continue to rise without hope of abatement; on the other hand there is the bleeding man in the water, representing, metaphorically, the way in which new technology has slashed the costs of the equipment necessary for automation. Yet the wonder is that the expected massacre has failed to materialise.

As Mr. George Cox, managing director of Butler Cox, a consultancy established specially to deal with the advent of the electronic office put it: "The developments that we expected are simply not happening."

Mr. Cox sees a number of reasons for this apparent failure to exploit the costs benefits available through modern technology: "There is no simple way into the electronic office. With data processing, it was comparatively simple because of the size and cost of the central mainframe and because of the way data processing underlies all the administrative work of the company. A single, central decision *had* to be taken to computerise. With office automation, the decision-making process is much more diffuse. Companies are nibbling round the edges but few are biting."

Mr. Cox's view is backed up evidence from computer users. Chase Manhattan Bank in New York is one of the most imaginative and courageous users of advanced data processing equipment. It uses a complete mixture of equipment from large IBM mainframes to carry out the bulk of its processing, to Datapoint minicomputer networks for robust data entry to Wang word processors. It was one of the first to experiment with hand-written data entry using a system developed by the UK company Quest Automation and its foreign dealing room has tried a foreign exchange package of considerable complexity developed by the UK software house Logica.

Yet it has hardly started to grapple with the problem of office automation. Its senior officials are unwilling even to suggest a tentative timescale for implementation of any office system, pointing to the difficulty of securing agreement throughout the management hierarchy for the adoption of systems which are fundamental to everything the company does—yet on which each manager has his or her own view.

Managers in Chase Manhattan do not have on-line terminals on their desk from which they can cull the latest management information or receive messages from other parts of the organisation. And it is unlikely they will have in the foreseeable future. As one senior executive said: "Who is going to make the decision in a huge organisation like this? Who is going to reconcile the needs and ideas of all our different groups?"

MARKET FOR OFFICE AUTOMATION SYSTEMS

Total hardware and services

Office automation system	1978 market $m	1979 market estimate $m	1984 market potential $m	1979-1984 average annual growth rate %
Word processors	865	1,177	6,030	39
Computer based message systems (public & private)	27	64	835	68
Facsimile	150	186	505	22
OCR services	5	15	157	60
Com. services	5	11	98	55
Total	1,052	1,453	7,625	39

Source: Input.

Growth business

This goes some way to explaining the chief role that computer services companies can take in the development of the electronic office: that of systems consultant.

The function of computer services companies is often misunderstood, but basically they will do your computing for you if you have no computer or they will make it easier for you to do your computing on your own machine.

It is a growth business, and the fastest growing part of it is consultancy. Between 1976 and 1978 consultancy and training grew by around 21 per cent a year, taking inflation into account. The software business grew by 17 per cent a year over the same period and the bureaux business by only 5 per cent a year. According to Roger Graham, managing director of Data Processing and Training for the consultancy Business Intelligence Services: "The sheer rate of change in the technology these past ten years has fuelled the desire of users to have independent advice in the making of key decisions."

"How many of us had installed interdepartmental data bases, or were talking of satellite communications, electronic mail or word processing a short three years ago?" said Mr. Graham. "It was not and is not that consultants are cleverer than their clients, but simply that they have regular and repeated experience of tasks such as equipment benchmarking, installation audits, data base and telecommunications design and so on which are either new to an organisation, or done very occasionally in any one organisation."

Speaking at a major data processing conference, Mr. Graham went on: "There will be scope for providing national and international data network facilities to give faster, cheaper, more accurate communication between and within organisations.

"Electronic mail is a buzz word representing simply the enhancement of already extant message switching facilities. Processing companies (services companies with their own computers) will be in a special position to exploit this market, the more so if governments proceed to deregulate common carrier facilities and allow competition with the Post Office. The large corporations, banks and government will have their own networks but even they may well turn to outsiders to establish them and perhaps run them."

Mr. Graham's views are mirrored by those of Dr. Douglas Eyeions, director general of the Computer Services Association. He says: "The most important role of the services companies is to advise on the proper strategy. Too many companies simply buy computer equipment—and that is fatal. What is important is to solve the problem by thinking in terms of the system. Is it a typing problem, for example, or something that can be solved using a system of information retrieval?"

The CSA, which represents the leading computing services companies in the UK, has a specialist group examining office automation which consists of representatives from Logica, Pactel, CSP, Langton Information Systems, Peate Marwick Mitchell, P-E Consultants and Arthur Andersen. Other CSA companies which specialise in the electronic office include Hoskyns, F International and Data Logic.

Big change

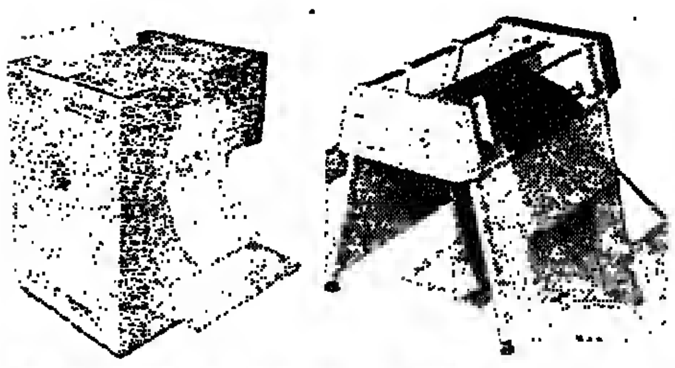
A major change these days is that services companies will provide hardware as well as services. Data Logic, for example, a subsidiary of the U.S. Raytheon Cossor group, makes its own specialised microprocessor-based terminals. And Logica, a specialist in word processing, provides the Logica VTS system a word processor marketed by the National Enterprise Board office automation company Nexos.

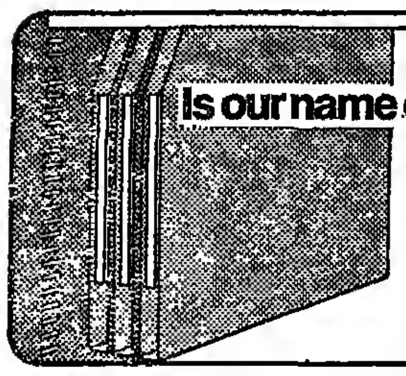
According to Mr. Leonard Taylor, managing director of Logica: "The technology is changing rapidly. There are new products and new developments each year which are slightly better and slightly cheaper than before. Customers feel a real need for a source of authoritative advice, which is not a massive multinational like IBM or Xerox, but which is aware of the potential of the technology and can help them make a considered choice."

The choice is certainly bewildering. The list of makers of such a mundane device as the humble word processor fills several columns in the Computer *Users Year Book*, the bible of the computer industry.

And how is the naive user to choose, for example, between the bewildering variety of in-office ring main systems on offer, Ethernet from Xerox, Intel and Digital Equipment, Z Net from Zilog, ARC from Datapoint, the Cambridge ring, Demos from Scicon and the National Physical Laboratory, to mention only a few. As Dr. Eyeions says: "Even the work station you choose today will probably not be compatible with systems operating in a few years time."

Consultancies thrived on the users' need for advice on how best to do data processing: that experience looks likely to be repeated with the advent of the integrated electronic office.





The "mailbox" facility of private viewdata systems, such as Systems Designers' IVS-3, enables information to be transferred rapidly throughout an organisation via individual viewdata terminals, the system's central mini-computer and standard telephone lines

The IBM Displaywriter is a modular, software-based system designed to be both economical and easy to use. The basic unit consists of a 12in. display electronics module, typewriter-like keyboard, printer and diskette unit

Packaging technology for the layman

VIEWDATA

GUY DE JONQUIERES

IT IS A truth well-nigh universally acknowledged (or, at any rate, endlessly repeated) that the rapid fall in the price of electronic hardware has brought computer technology within reach of a vastly greater number of poteotial users than ever scemed possible.

But it is equally true that the great majority of people know little about computers and find them difficult to understand and impossible to operate. Thus, packaging the technology in a form which makes it readily accessible to the laymao (and, ideally, enables him to forget that he is dealing with a computer at all) is an important factor governing the speed at which it gains public acceptance.

Viewdata systems, which allow subscribers to interrogate a computerised data base by means of a specially modified television, equipped with a keyboard or keypad, provide one solution to the problem. They are extremely easy to use, relatively inexpensive and provide ready access to a potentially limitless store of up-to-date information.

Marketing

The information is stored as "pages" which can be called up on the screen, one at a time. Facilities can be built in for editing the data displayed, and for sending messages from one terminal to another, electronically. By installing an "intelligent" terminal (that is, one equipped with some processing power of its own), an operator can even perform calculations using programs and data stored in the central computer.

The best-known viewdata system at present is Prestel, the public service operated by Britain's Post Office. It offers subscribers 150,000 pages of information on subjects as diverse as financial markets, travel, sgriculture, entertainment, property and health care. The pages are prepared by independent suppliers, known as "information providers" (i.p.s.).

The Post Office had hoped that Prestel would find a ready market in households and originally forecast that 50,000 sets would be in use by the end of this year. But partly because of an initial shortage of sets and the high prices charged for them, there are still only about 6,000 subscribers. Of there, more than 5,000 are businesses.

The travel business is the single biggest market today, accounting for more than 1,200 of the sets installed. Prestel enables travel agents to look up information on air, land and sea travel and even to make reservations. The next biggest group, with about 200 sets, is investment companies.

The Post Office now accepts that a big residential market is unlikely to materlalise in the short-term. It has decided to aim its marketing efforts principally at business users over the next couple of years, in the hope that set prices will fall sufficiently thereafter to stimulate an upsurge of demand among private subscribers.

One feature of Prestel, designen to appeal to business users, is a facility to rent space on the computer for storage of confidential information accessible only to designated subscribers. This arrangement, known as a "Closed User Group," would, for example, enable different branches of the same company to keep up-to-date on information about orders stocks, accounts and so on.

For some business users though, especially those with large and dispersed operations, Prestel may not be sufficiently flexible and sophisticated to meet their needs. One case in point is the London Stock Exchange, which last June inaugurated a private viewdata system to replace its computerised share price information service, which informs brokers of market movements.

The Stock Exchange decided to install its own system because it needed a service on which information could be updated far more rapidly than is possible with Prestel. It also feared that brokers would have difficulty getting through to the central computer when they needed share price information if they had to rely on the normal switched telephone lines used to link Prestel terminals.

Power

The Exchange's system, known as TOPIC, is based on a network of private circuits leased from the Post Office. But ironically, like many other City institutions, the Exchange complains that it is having difficulty obtaining as many lines as it needs. So far, about 150 terminals are in use and a further 800 are on order.

The Exchange developed TOPIC itself, at a cost of about £1m. But a number of independent suppliers are now starting to offer ready-made privste viewdata systems, at prices of £17,000 upwards. They include the General Electric Company (GEC), Redifon Computers, International Computers (ICL), Honeywell Jasmin and Aregon, a subsidiary of the National Enterprise Board.

GEC plans to launch its first systems, later this month. It says that they will offer facilities for rapid up-dating of information, extensive editing, electronic messages and effective data security. Users will, for example, be able to store data on their own private file in the computer and retrieve it only from their own terminal using a personal identification code.

GEC's biggest system, priced at about £200,000, will be suitable for viewdata "bureaux." It anticipates that a number of private operators will want to set up bureaux which will manage information services for subscribers for a fee.

Redifon Computers, part of the Rediffusion Group, has already launched two systems which can either be used on their own or grafted on to an existing computer network. In the latter case, viewdata terminals can be used to gain access to data bases anywhere in the computer system.

Mr. Mike Aldrich, managing director, says that Redifon has already taken orders for 20 systems. He is enthusiastic about the potential for using viewdata as a learning aid, which will enable students to receive instruction in their own homes by following a programmed course through a terminal.

He also believes that viewdata could be used for "electronic shopping." Instead of visiting a shop, a subscriber would place his orders on a computer at a local warehouse and could even pay for them through his home viewdata terminal. But Mr. Aldrich acknowledges that it will be some time before enough terminals are installed in private houses to make such a service economically feasible.

Aregon (formerly Insac Viewdata) was set up to sell British viewdata products and technology to private customers abroad. Its main product is a private viewdata system, the IVS. This was developed jointly with Systems Designers (SDL), which markets it in Britain.

Mr. Anthony Chandor, managing director of Aregon, says that on the basis of current orders he expects to see 10 IVS systems operating within the next 6 months, with each an average of 500 terminals eventually attached. He believes that the prime market for business viewdata systems is in applications where direct communications are required between suppliers and their customers.

For example, he believes that department stores will install viewdata terminals enabling shoppers to find out exactly what they have in stock and where to find it. Wholesale stockists could also use the systems to take orders from their customers.

Mr. Chandor is convinced that the essential appeal of viewdata lies in its simplicity and ease of use. Though conventional computer systems are becoming easier to operate, he believes that it will be some time before they become accessible to the average man.

"I've been watching computer programs get easier for some years," he says. "But inevitably, you need an understanding of data-base management and of computer languages. With a viewdata set there is really a feeling that you can sit down in front of it and operate it without needing any special instruction."

For this reason, he argues, the temptation to make viewdata sets more "clever" should be resisted if it also means making them harder to use. In the expanding world of viewdata, the motto seems to be: keep it simple.

Increasing popularity after a century of use

FACSIMILE

JASON CRISP

OFFICE EQUIPMENT by crisp THE FACSIMILE transmission of documents has long been cited as a potentially very popular form of communication, but it has never taken-off as once predicted. Yet, now that attention is constantly focused on the electronic "office of the future," hopes for facsimile are being raised again.

According to the prophets, the work station in the office of the future will have facsimile, alongside the video screen, the keyboard and the printer. Ironically, for so advanced a notion, facsimile transmission was invented in the 1880s, by Alexander Bayne.

Facsimile is also one of the earliest forms of electronic mail, as is telex, which has been widely adopted throughout business.

A facsimile machine allows a whole page of paper of A4 size to be transmitted along the telephone line to another machine then be reproduced exactly, including diagrams and signatures, rather like a photocopy.

The facsimile machine works by scanning the document, line-by-line and transmitting signals which tell the receiving machine where the areas of light and dark are located on each line.

Unlike telex, which is a system of telegraphy, using teleprinters, facsimile has failed to become a normal form of inter-office or company communication. The primary use of facsimile is for a specific purpose between two locations, either within a company or to a single client.

The main users have been organisations such as banks—where it can be used for the verification of signatures—and in publishing and newspapers. (The Financial Times, for example, uses a number of facsimile machines to transmit copy to Frankfurt for our European edition.)

There have been a number of disadvantages in using facsimile as a general means of communication. International standards have developed slowly, which means that most machines have been unable to communicate with others apart from those of the same manufacturer. Fairly slow transmission times can mean expensive call charges. Many facsimile machines need to be attended and cannot receive when the office is unattended—although most manufacturers offer automatic receiving equipment.

The very specialised facsimile machines with high resolution, used in meteorological and military applications, are made by the British company, Muirhead. But, in general commercial usage, there are three basic groups of machines which are differentiated both by their technology and the speed in which they can transmit a document.

Groups one and two, for which there are international standards set by the International Telegraph and Telephone Consultative Committee (CCITT), use an analogue signal (waveform) to transmit the document. Group one takes up to six minutes to transmit a page of A4 and many of the machines that were sold in this area were made by Rank Xerox.

Group two, which are sold by a number of companies, are quicker and have a maximum transmission time of three minutes. More advanced machines have "data compression" techniques which can speed transmission considerably.

Data compression can work in two ways, either the scanner jumps a line which comprises of white space with no text or it compares each line with the

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Demand continues despite recession

REPROGRAPHICS

JASON CRISP

EVEN THE recession has failed to stem completely the growth in demand for photocopiers. In Britain, sates are growing by about 15 per cent, compared with an originally expected 25 per cent. Bnt with dozens of companies aggressively battling for the market, prices, in real terms, continue to fall.

The Xerox empire—Xerox, Rank Xerox and Fuji Xerox—still towers over world markets, although it is increasingly coming under siege from Japanese companies. Indeed, one of them, Ricoh, whose products are sold in the UK by Nashua and Kalle Infotech, sells more copiers, in terms of units, than Xerox.

At the top end of the range, with high-speed and high quality copiers, there is little competition for the Xerox range and where there is any competition, it comes from IBM and Kodak. But in the low-to-medium speed plain paper copier range, which is where the major growth in business is found, the competition comes in boards, and includes Canon, Minolta, Sharp, Toshiba and Ricoh from Japan.

The reprographics industry can be broadly divided into four *main sectors*. One: offset duplicators used for long runs of very high quality, used either in large companies or in print shops. Two: high-speed plain paper copiers used for high volume and long runs. Three: low- and medium-speed plain paper copiers; and, four: coated paper copiers.

Coated paper copiers are relatively cheap and fairly small, but the paper is much more expensive than for plain paper copiers. The copies are of poorer quality, are difficult to write on and not particularly pleasant to handle and would not normally be sent outside a company. The continued fall in prices of plain paper copiers has eroded the price advantage of the coated paper at increasingly lower volumes of copies per month. Although a number of companies still make coated paper copiers, it is a sector which is in decline.

The major growth area is in low- and medium-speed plain paper copiers which can produce from 8 to 40 copies a minute, and is dominated by the Japanese manufacturers, many of whose machines are sold by European and U.S. companies. Broadly, the market for these machines falls into two significant sectors.

Number

● Large companies which use this range of copiers in small offices and departments as an addition to more centralised high-speed copiers. The idea, according to the manufacturers, is also to have a number of small machines around the building for quick and easy use, thus avoiding delays and queuing.

● The other significant sector is small companies and professional practices, such as lawyers and accountants, who will be trading-up either from a coated paper copier or from the use of a copy bureau.

There has also been an increase in the number of relatively small machines which can have document feeders, sorters and staplers attached to them—facilities which were once the preserve of the large powerful and expensive machines. The rapidly falling cost of microelectronics has made it much cheaper to provide extra facilities, as well as reducing component numbers, which has increased reliability. And microelectronics has reduced servicing costs because it can offer *self-diagnosis* of faults.

But the rapid growth in the small company market for plain paper copiers has had a major affect on how copiers are marketed. Rank Xerox, which for so long relied on a large sales force, selling directly, has had to make some major changes because of the very high unit costs of selling a single *small* or medium-sized copier.

Rank Xerox, following the lead of Xerox in the U.S., is to open its own retail stores. The pilot scheme begins with two shops opening in London this month and there are plans for a third within six months. The stores will sell other office equipment like Apple computers, calculators and word processors.

A number of other copier companies are looking at ways of introducing their smaller and cheaper plain paper models into retail outlets. The low end of the range of plain paper copiers is seen, by manufacturers, as a commodity market.

At this level, it is no longer feasible to support a salesman *on the road to sell individual* copiers through direct selling. Most companies in the UK combine direct selling with a dealer *network*.

A number of companies are having to devise means of reducing the marketing costs of their lower priced machines, Nashua, a U.S.-owned company which sells copiers made by Ricoh, is *using self-employed* agents to sell its latest very small plain paper copier in a bid to cut overheads. The company claims it is the smallest in the world of its type—it is also sold by Kalle Infotech. Nashua will still install and service the machine.

Rank Xerox, which has long relied on direct selling, is now looking at a number of ways of cutting its costs and in addition to the retail stores has started selling by telephone.

Rank Xerox has also filled out its range where there had been a number of gaps which were being exploited very successfully by other companies. It means that it is competing in some of the fiercest areas, with *the lowest* margins.

Onslaught

Ricoh, which traditionally has been sold in the U.S. by Savin and, in Europe, by Nashua and Kalle Infotech, has announced it is entering both markets directly. The three companies which market Ricoh's products will continue to do so until 1983, and some for longer. Ricoh is poised to sell plain paper copiers with a dry toner and some parts of the industry *suspect* it is girding itself for a major onslaught on Xerox.

Although Ricoh's skills as a manufacturer are reputed to be high some parts of the industry question its strengths in marketing. But Ricoh appears to be moving cautiously and is setting up dealer networks in a number of countries. Nashua has begun to manufacture its own copier in the U.S. and Savin is expected to begin its own manufacture shortly.

There are over 30 companies marketing more than 150 different copiers in Britain alone; of which the leading companies are Rank Xerox, Canon, Nashua, Agfa-Gevaert, Gestetner, Mitsubishi and IBM.

Most observers anticipate two trends. The first, which is already happening, is a diversification of selling methods. The second is a restructuring of the industry into a fewer number of suppliers, although this is not necessarily anticipated in the short term.

Unchallenged

At the top end of the market, Rank Xerox remains largely unchallenged—for the time being. It has recently launched a range of new equipment in the UK; it includes a copier which produces 120 copies a minute at a very high quality which, the company hopes, will make inroads into the metal plate offset market.

In the U.S., Xerox launched its first "intelligent copier" which, in addition to high-speed copying, can receive text directly from both Xerox and IBM word processors and computers. A number of other companies have been racing to develop similar products, including both Japanese and other U.S. companies.

Although Rank Xerox continues to dominate at the top end of the copier range, few doubt that the Japanese companies will begin to chase it upmarket. And while the total market for copiers is predicted to continue to grow, some of the combatants are likely to withdraw in the face of some highly efficient competition from the leading companies.

The Xerox telecopier 485, the latest addition to the Rank Xerox facsimile transmission equipment which already holds a major market share in the UK

Facsimile machines

CONTINUED FROM PREVIOUS PAGE

previous one and only transmits the changes.

Nexos, the National Enterprise Board's office equipment subsidiary, markets Muirhead's facsimile equipment including one group two machine made by Muirhead itself and one made by the Japanese company, Oki. Plessey markets machines made by the Japanese company, Matsushita. Other companies in the market include Dex, 3M, Siemens and ITT.

Kalle Infotech, a subsidiary of the German chemical giant, Hoechst, is the major supplier of group three digital facsimile equipment which can send a page of A4 in times of 30 seconds to one minute. Kalle Infotech's facsimile is made by Ricoh, a leading Japanese manufacturer of photocopiers.

Until now, there has not been an international standard for group three, but earlier this year one was published by CCITT which is expected to be ratified *this month*.

Although it is not expected to introduce a sudden growth in the digital facsimile market, a number of manufacturers are expected to be introducing new machines which are compatible with the new group three standard.

Kalle Infotech itself will be introducing a more expensive machine which has been adapted to meet the standard or it will convert existing installed machines for between £1,250 and £1,500 each. The company claims there is an installed base of 25,000 machines worldwide (around 1,100 in the UK) which means it will be some time before the group three standard becomes more common than that of the Ricoh built equipment.

Mackintosh Consultants, in its study on electronic mail, has estimated that the number of digital machines in the UK would reach 23,000 by 1985, a forecast which it now says is "slightly pessimistic."

A significant factor in the development of facsimile is connected to the price of electronic data storage or memory. To transmit a page of information, the text has to be scanned very finely so that many thousands *of pieces of information are* sent to the receiving machine. By contrast, communicating word processors *only need to send a* small amount of information to transmit a letter of text; this is done in a form of computerised morse code.

But once a memory—such as a floppy disc—is attached to the *transmitting* and receiving machines, the information may be transmitted very quickly, saving telephone costs, after being scanned and then retrieved at the operating speed of the machine. It also does not restrict the operator to the availability of overseas lines—thus, facsimile can be sent overnight, at a more economical rate.

The problem is the memory is at present too expensive to make it economic, but prices are falling rapidly and, according to Mackintosh, it will begin to look feasible to add a floppy disc to a facsimile machine by about 1984-85. Then it will have the advantages of high speed transmission, store and forward, as well as that of being able to send diagrams.

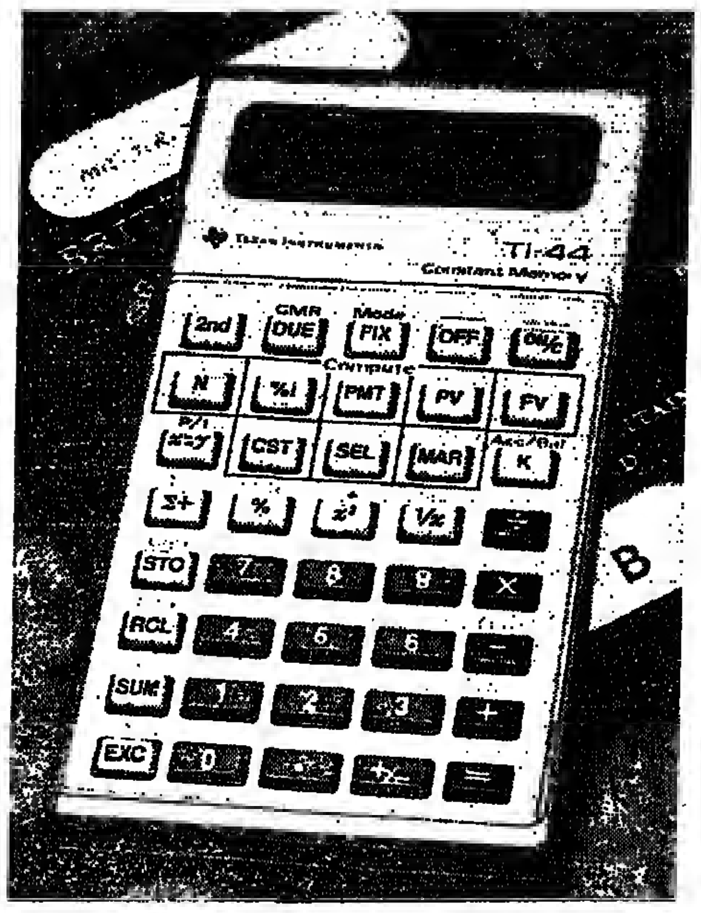
Another basic advantage of the system is that it does not involve the *expensive* process of retyping, as the original document can be transmitted.

Inevitably, the growth in the market of word processors, which will be able to communicate with each other, is a potential threat to facsimile. Similarly, intelligent copiers, which can communicate with each other, are seen as a much more distant threat.

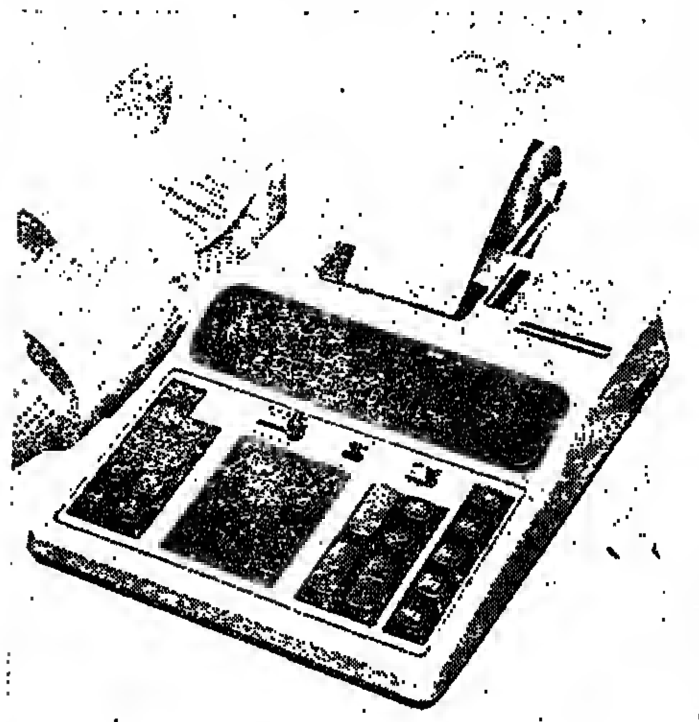
Facsimile is unlikely ever to become as popular in Europe as it is in Japan — where the number of characters in the script make it a very attractive way of communicating. But, according to many observers, the method will grow in popularity and it will be a long time before it is superseded.

A new "archiving workstation" from Wang stores and retrieves documents at sites up to 2,000 feet away from the system master. Operators in remote locations protect the confidentiality of their documents and conveniently retain control and storage of their text at their own work areas

Tending towards specialisation



Calculators for the businessman: The model TI-44, above, has special keys which produce immediate solutions to many commercial problems. With a suede-finish vinyl wallet case, it comes complete with a manual containing operating instructions and examples of problems which can be solved. It costs under £35



Below: The Citizen 101-DP calculator which is designed "for the busy desks of middle management"

CALCULATORS

ELAINE WILLIAMS

WITH THE general consumer market for calculators fairly static at about 50m units a year, worldwide, manufacturers have begun to specialise in those areas which still show a growth. These are the office equipment and professional/acientific markets.

Today, the cheapest four-function calculators have become "throwaway" items costing typically around £5 and only those companies with large market shares, such as Sharp and Casio, can produce the production volumes necessary to make a profit from this market.

However, in the office and scientific sector there is far more added value and more apecialist makers can offer machines which are specific to a company's or individual's needs.

Expansion

A few companies such as Texas Instruments and Hewlett Packard have always adopted this market specialisation to some degree or another — Hewlett Packard produces a range of scientific machines which are often difficult to distinguish from small computers.

Texas Instruments is also heavily involved in the technical sector although it also participates in the general consumer market. The company produces not only traditional pocket calculators but also a variety of machines which provide translation into and from foreign languages; other items help children learn to spell and count.

For business applications, language translators are being sold to encourage language barriers to be broken. Many of the machines provide vocabularies of more than 500 words, with a few sentences and phrases.

Such machines cost around £100, although the prices of the simpler machines are falling as they are overtaken by more sophisticated models. Early examples were of limited use, since they could only retain a list of about 100 words. Before long, it may be possible to throw away business phrase books altogether, using instead, an electronic translator.

One of the most lucrative areas of the market is the burgeoning office equipment sector. Many of the companies which compete here are also involved in other aspects of office equipment and include Olympia International, which makes typewriters; Triumph Adler (OEM Group), another typewriter maker; Casio, Canon which manufactures office copiers, Sharp; Toshiba in Japan, and Esselte-Dymo which sells the Citizen brand.

Office users are becoming more selective about their choice of calculators, avoiding over-complex models which may be capable of handling intricate, but seldom-used functions, in favour of more simple designs, aimed at the user's particular duties.

Some examples of this trend include a range of seven desk-top models from Facit which vary in facilities from a ten-digit, print-only machine to a 14-digit print-and-display model with two independently addressable memories. Other companies, such as Olympia and Toshiba Citizen, have equally large ranges of calculators, some which have small high-speed printers.

In addition, many machines offer a variety of features such as integral clocks and calendars Toshiba, for example, offers a pocket calculator which can show which date falls on which day of the week.

Facilities

According to the company, the machine can be used to find out and plan for business commitments, holidays and anniversaries; it also acts as a clock, alarm and stop watch and has a four-key memory.

Some manufacturera have models which allow entries to be made for future dates. Other types of office machines, such as word processors, often contain such functions and can automatically print out what appointments are due and when.

It is now becoming common for even small hand-held calculators to have a small printer attached which cost, typically, less than £50. Many of these items are now being sold into the home as well as the office.

In the traditional hand-held calculator sector, the extension of battery life has become an important selling point in both domestic and office applications. In some early models, batteries would only last a matter of weeks, or a few months at most; calculators are now expected to last up to a year or more.

Extending the battery life has been achieved in two main ways: first, by incorporating displays which consume less energy and, secondly, by new battery design.

Early calculators which were battery-operated used a light emitting diode display (LED)—which were often a glowing red in colour. Unfortunately, these were relatively power-greedy devices and, by the late 1970s, began to be overtaken by a low-power display, using liquid crystals.

Liquid crystals now dominate hand-held calculator displays; these are composed of a glass sandwich with liquid crystals in tiny cells between two glass plates, which are etched with patterns of numbers and letters. The liquid crystals is made up of organic material which becomes dark in colour when a voltage is applied to a particular cell.

Design

Each cell is connected to the electronic control circuitry so that the chemical can be msde to appear dark or transparent at will to form any particular number.

In the field of battery design, batteries incorporating lithium, instead of silver dioxide, are being introduced. This has resulted in increasing battery life from about 1,000 hours to more than 8,000 hours which extends the operation of a calculator without a battery change, for up to ten years.

Last May, for example, Olympia introduced three pocket machines with lithium batteries which have no means of changing the battery. The company says that users are likely to become bored with the design of the LCD 80, 380 and 480 long before the battery reaches the end of its life.

As well as lithium, some manufacturers have even introduced solar powered calculators which, it is claimed can store enough energy — even in Britain's unpredictable climate —to operate satisfactory, in any office.

With the collapse of the general consumer calculator market in 1978, those models which come under the classification of office equipment tend now to be marketed through dealers in professional supplies, while the low-price, pocket and hand-held models are still distributed through the major high street multiples.

Dealers, therefore, have a far closer relationship with the manufacturers and the range of models that they supply, so that the business user is able to obtain sound advice on the type of calculator which will best suit his needs.

A range of desk-top dictation machines from Philips Business Equipment features a visual "mark-and-find" facility, giving precise visual instructions on the cassette. The facility gives a secretary precise knowledge of the nature and amount of work left for dictation

Sales expected to double over next few years

DICTATING MACHINES

DAVID CHURCHILL

THE BRITISH market for dictating machines which, at present, has retail sales of about £20m, is expected to double over the next few years as a result of new technological developments making dictating equipment an effective means of reducing costs.

The main development which will spearhead this growth is micro-technology which is making dictating machines more portable than ever before. But a further factor is the increased use of automated word-processing equipment in offices — in the constant search for greater productivity — which will make it even more important for efficient word-inputting via dictating machines to match the sophisticated word-processing.

Probably the key advantage of a dictating machine system is the savings that can be made in executive time. The dictating machine user is able to give dictation at any convenient moment, in or out of office hours, without the need to arrange for a secretary to be present. This also can lead to substantial savings in staff time and costs—especially important in view of the rising scale of secretarial salaries.

Demand, overall, for dictating machines has increased in direct response to the increasing need for transcription capabilities within the office. It is considered essential that, in order to make the best use of expensive office overheads, both equipment and staff time are put to optimum use.

A guide for potential buyers of dictating machines, published by the Business Equipment Trade Association, stresses that it is essential for managements to determine exactly what type of equipment is required.

It suggests that a specialist consultant's advice may even be necessary before any final decision is taken.

Moreover, the guide points out the short-sightedness of buying equipment on price alone, without careful consideration of the user's requirements as well as the possible expansion of an organisation. The guide also suggests that the widest possible range of different suppliers should be asked to submit quotas, giving the greatest number of options possible.

The guide also points out the importance of proper training. It suggests that while the typist can usually master a system within a short time, it is more important that the executive using the machine should be properly trained.

"It is probably fair to say that users would be better advised in ensuring that the equipment or system is fully utilised in a competent fashion than being over concerned with the technical excellence of the equipment," the association guide says.

Most executives would obviously prefer to do their dictation with a secretary taking notes and many become tongue-tied at the sound of their own voices. For that reason, users may be quick to find fault with a machine. Manufacturers therefore aim to make their products as easy to operate as possible.

"We have to make sure people don't find an excuse to throw the machine aside and revert to their old system," one company candidly admits.

Most of the larger manufacturing companies offer training schemes in conjunction with their equipment. But many users still regard training as unnecessary in the belief that dictation is a simple matter. Most manufacturers consider that it is unlikely that a user will obtain the best out of equipment unless some training is given, sometimes for as little as one day.

Divisions

The dictating machine market is divided into two main types of machines: those which are portable and those which are primarily intended for desk-top use, such as for play-back as part of a wider word processing system. However, it is the small, portable machines which have accounted for the fastest growth.

The size of portable machines is largely determinad by the size of the cassettes, and there are three main sizes to choose from.

Firstly, there is the standard cassette, used for domestic tape machines and, thus, generally considered too large for small portable machines.

Secondly, there is the mini cassette which is the most popular size. The mini-cassette is about the length, width and half the depth of a matchbox and can record 15 minutes each side, although some can record for 40 minutes.

Thirdly, there is the micro-cassette which is slightly smaller than the mini-cassette.

The development of this micro-technology has enabled the major companies to market their machines especially for the travelling businessman who can keep up with his work literally "on the move."

The market leader in portable dictating machines is Philips, which has about two-thirds of the market. One of its most popular systems is the 300 series, launched in 1978, which introduced the mini-cassette system with the "mark and find" indexing system. The cassette has a special built-in index strip on each side which indicates to the typist the number of letters, their approximate length and special instructions on the tape.

The growth in portable machine sales, however, has led to renewed activity in this field by other major manufacturers, especially Dictaphone, which has about half the market for centralised dictation systems. There are about 20 manufacturers in this field, including IBM, Sony, and Lanier, all vying for a share of the growing market. This makes it even more necessary for companies to carefully "shop around" for the best system for their needs—at the right price.

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More sophisticated systems may soon emerge

MICROGRAPHICS

GEOFFREY CHARLISH

REDUCED TEXT images on film are nearly as old as photography itself and can be traced to an Englishmao called Daocer in 1839. A French photographer used carrier pigeons to fly 100,000 messages out of besieged Paris in the Franco-Prussian war (1870). But microfilm was first used commercially in 1925 to film cheques in a New York bank. Kodak first offered equipment in 1928.

The financial institutions are still the main users, accounting for a quarter of the market but nowadays manufacturiog and government are not far behind. Consultants G. G. Baker and Associates put the total UK market at nearly £65m, covering bardware, maintenance, consumables and bureau services.

Growth of the market has been at about 20 per cent per annum for some yeara but whether this will continue depends on erosion by electronic storage techniques.

For example, if a document bas to be typed, it ia an increasingly cheap and simple matter to hold the text on a magnetic disc or even a solid state store for play-back on a printer in a minute or two.

Even original documents that need no operator keyboarding such as cheques can be scanned and stored digitally—with the advantage that they can then be transmitted somewhere else. The legality of such techniquea is still under consideration, however.

Where maps and engineering drawings are concerned microfilm certainly scores at the moment but they will be increasingly composed on VDU cathode ray tube screens from touch tablets or external digital data—which is easy to store on disc. The data can then be plotted automatically for shop-floor drawings in a few minutes (assuming, in tomorrow's world, that sucb drawings will even be needed).

All these and other things are possible and the objections to them usually quoted of capital cost and the need to key in data are losing strength. Electronics is getting cheaper and cheaper and in the integrated office environment the document bas to be created somewbere. It used to be emphasised that microfilm could not be altered, but recent developments have changed even that.

At the moment, the clear-cut application for film is in totally archival, long-term, relatively cheap storage occupying minimum space and this will probably remain the case for at least the next decade.

Which of the presently used microforms will endure is hard to say. Those available are 35mm roll for engineering drawings, 16mm roll and cassette, jackets (strips of 16mm film in a holder, making updating less expensive), fiche (up to 200 images on a postcard-size piece of film), ultrafiche (3,000 images) and even 105mm roll film. There are a variety of ways in which the images can be put on the material and a number of proprietary ways of retrieving them.

In terms of viewers, some of which will print copiea as well, there are well over 250 equipments to chose from. The considerable variety of both format and equipment bardly fits the indnstry for countering the attack of electronics.

Jackets may lose favour in view of the recent announcements by A. B. Dick and Bell and Howell of updateable fiche. The former allows blank spaces in a ficbe to be filled wbile the latter permits a frame to be erased and replaced with another, ad infinitum. No wet chemistry is involved in either case. Clearly, the Bell and Howell system, called Microx, has shifted microfilm away from its archival posture rather sharply; some of the flexibility of electronic storage is now vested in film.

Possibilities

At this point, alliance with electronic data processing could give some interesting macbines. Both document filming and VDU screen filming on to these ficbe would allow two stores: one rather more current and electronic and the other rather more archival and filmic. The technology exists for the images on film to be scanned into a digital signal, crossing the film/electronic barrier in the other direction and allowing display of the film image on some distant VDU.

Once this interface between film and electronics is establisbed other office activities can be embraced including word processing, facsimile, business data processing—even copying would be feasible, from the ficbe.

It is not too difficult to visualise such a machine centred around a VDU work station in wbich the image on the screen is repeated internally on a high resolution tube for fiche recording. The work station would accept images/data from disc (word processing, business data, etc.), from a line-by-line scanner of original documents or fiche (via a single frame store), from facsimile input or from external data bases such as viewdata. Anything could go on or off fiche or on and off disc, more or less at will.

Such an all-embracing system may not be too far away since one of the difficolties, reasonably quick microfilm access, has already heeo solved to the point where any frame from 4m, stored on 105mm roll film in multiple cassettes, can be on screen in under 10 seconds. Carousel systems with 760 fiche can store 200,000 frames with access in three or four seconds.

A few weeks ago Terminal Data Corporation and Antone Systems of Bournemonth demonstrated such storage and a good deal of the electronic technique mentioned above. The accessed frame is digitised by a line scan camera, held in a solid state frame store and made available to terminals which have intelligence and character generators to allow annotation of the "film" image on the screen. The German police are to use the system to add radio-derived positional data about accidents to maps brought up from a fiche store—automatically.

Also tackling fast fiche retrieval is Access Information in the U.S., and the equipment is marketed here by A. B. Dick. This holds the fiche in linear rows in magnetised ficbe holders; a magnet extractor system commanded from a keyboard pulls out one fiche from thousands in a few seconds.

At a rather less glamorous level Kodak recently sbowed how normal VDU-based retrieval of brief customer data from a computer can be backed up with fuller data from microfilm. Input source documents (invoices, shipping tickets, bills of lading, etc.) are initially coded and microfilmed and paper copies of them are passed to the VDU/reader operator who keys in the code along with the customer data for the computer.

At inquiry time, when tbe VDU is used to bring up a customer file from the computer for query purposes, displayed digits tell the operator which film cassette to load from a bank into the reader. A direct data connection from the computer drives the 16mm film to the right frame within seconds.

More sophisticated developments of this kind will probably emerge sooo; indeed, some feel that the future of microfilm in tomorrow'a office will depend upon it.

Microfiche equipment from Bruning Micrographics in use at the British Library

Trend towards small electric machines

TYPEWRITERS

LISA WOOD

AS A nation Britain is among the most conservative in the developed world in its use of improved typewriter technology.

For it was in 1977 that for the first time sales of electric typewriters overtook sales of manual machines. While in Germany today only about 10 per cent of typewriters sold are manual and in Southern Ireland, about 25 per cent, in Britain about 30 per cent of total typewriter sales are still manuals.

Mr. Chris Hedges, chairman of the typewriting division of the Business Equipment Trade Association and director, marketing, Smith Corona, said: "The fault has not been so much that of consumer resistance, but more at the door of manufacturers and dealers.

"Many dealers, for example, were brought up with the manual and still have the big heavy typewriter mentality. That is, if there is a commercial need, the product must be big. We now need to suit the product more to the requirements of the market."

The trend in the industry shows a very definite swing towards use of the small electric machine. In the second quarter of this year, the market for heavy duty office manuals and heavy duty office electric machines fell by about 40 per cent compared with the same period last year. However, growth was seen in the market for small electric machines, with sales growing by more than 15 per cent on the same period last year.

Impressive

The growth in sales of small electric machines during the last 10 years has been extraordinary. Io 1974, about 4,500 electric machines were sold in the UK, the market being pioneered by Smith Corona. Sales are now running at about 80,000 units a year and the major manufacturers, including a strong new presence by the Japanese company, Silver Reed, produce a wide variety of machines.

A third option to the consumer is the electronic typewriter. These offer certain advantages over the existing electric machines — be they golf-ball or bar typewriters — in that they are quieter and can centre headings, give right and left-band justification, corrections and tabulation printing, all done automatically.

Companies have gone to great lengths to persuade secretaries, worried by the inroads being made on their jobs by electronics, that the electronic typewriter will not put them out of a job. Olivetti, for example, in introducing the ET 201 and ET 221 into the UK last year, took 800 secretaries to a special launch to show the electronic typewriters.

At the moment, much of the resistance in the market is because of the price of the electronic machine, which can cost up to £1,400; bnt as with all electronic equipment the cost of production falls as volume production increases. Dramatic examples ef this have occurred in the electronic calculator and electronic watch market.

However, such large falls are unlikely in the typewriting field as the typewriter is a professional piece of equipment which bas to be regularly serviced and also has a higber profit mark-up.

But the great advantage of the electrooic typewriter is that it has fewer moving parts than a conventional electric machine, and therefore is more quickly assembled, is easier to maintain and repair and, in theory, has a longer life-time.

Althongh the UK market for typewriters this year has been generally depressed, manufacturers are optimistic of their machines' future. For much of the fall-off is because companies are delaying replacement of machines and when the economy picks up sales will respond accordingly.

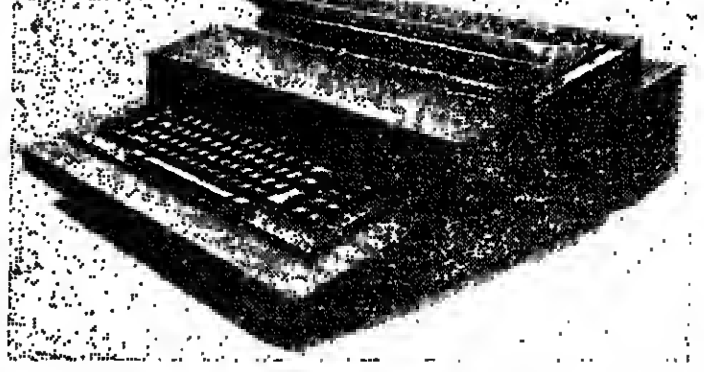
Although some machines may be replaced by word processors, manufacturers say that these will he mainly located in the "typing pool" regions of the office, with their beavy duty machines. Demand for electric and electronic machines will be maintained (and increased in the electronic area), particularly with the growth among companies of "key-board literacy."

The greatest growth area, according to manufactorers, must come in the field of the electronic typewriter. A new electronic machine introduced by the Smith Corona Corporation in the U.S. is one of the most interesting recent machines. It uses a typing element drlveo by ultrasonic waves. This advaoce eliminates between one-third and one-half of the mechanical parts found in a conventional electric machine. This prodnct sells in the U.S. for $900, about one-balf the price of comparable electronic typewriters offered by IBM, Xerox or the QYX unit of Exxon.

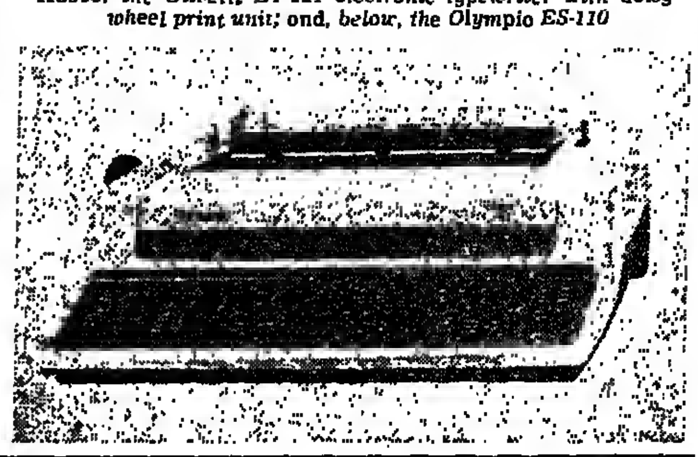
Bnt the establisbed giants of the industry are facing a new threat—that of Japanese manufacturers. They are poised to enter the electronic market with a vengeance and have already made swift inroads into the electric machine market. The Japanese, with no large domestic market for typewriters because of the language, used Germany for their marketing attack and now dominate the small electric sector of the market.

Existing companies will now have to look to their laurels. Some may decide to leave volume production to the Japanese and move to even more sophisticated technology with attendant higher prices.

"We have a real battle on our hands with the Japanese," says a Smitb/Corona spokesman. Maximum effort must be made by the established companies to market their new products, as loog as the price gap between their products and those of the Japanese does not become too large.



Above: the Olivetti ET-121 electronic typewriter with daisy-wheel print unit; and, below, the Olympia ES-110



Manufacturers facing a period of retrenchment

FURNITURE

DAVID CHURCHILL

"OFFICE 2.000" opened by the Industry Secretary, Sir Keith Joseph: a new centre in London, showing the latest in business equipment. The centre is the showpiece of the Office International Group, as well as an exhibition centre for the business equipment industry. With Sir Keith, from left: Sir Nicholas Cayzer, chairman of the British and Commonwealth Shipping Company; Mr. Leonard Sculthorp, chairman OIG; and Mr. Barry Hordle, deputy chairman OIG.

THE UK market for office furniture, which has remained buoyant for the past few years in line with the overall strength of demand for office property, now seems likely to face a period of retrenchment as the recession leads to fewer office developments.

Several other factors are also likely to combine over the next few years to give the office furniture manufacturers a fairly rough ride. One adverse factor is likely to be the slowdown in orders from the Middle East, which in the mid-70s emerged as an important market as the oil-rich Arab world indicated a clear preference for British office furniture, instead of its German, Swedish, and American competition. The political instability in that region, however, has already led to a downturn in sales.

Another problem in the UK market is the "U-turn" in Government policy of dispersing some of its offices away from London, as well as cutting back on the role of the Location of Offices Bureau. The exodus from London during the '70s played an important part in stimulating domestic demand for office furniture.

And there can be little doubt that the small businessman, in particular, does not feel prosperous enough at present to refurnish even his own office, let alone his secretary's.

Divisions

The office furniture market is divided broadly into two main sectors. On the one hand, there are furniture consultants who offer a more extensive work study of a customer's needs before recommending the appropriate furniture. The second, and larger area, is the conventional retail and wholesale furniture trade.

The main theme in the development of office furniture, however, has been the growth of "systems" designed to make the most efficient use of a limited amount of office space. As office rents have soared during the 1970s, so has customer interest in these systems grown rapidly.

One approach, pioneered in the U.S., is basically a compromise between traditional walled offices and open-plan. It consists of moveable walls — because most people like to work within walls — which can be grouped to form a honeycomb effect. A development is to attach working areas to the walls, with an obvious saving in space.

Another system, closely associated with German furniture manufacturers, is to group desks together according to the work patterns in the office. This has the advantage of being more like open plan and gets away from the use of walls.

The move towards systems furniture has also been helped by the greater willingness of customers to buy quality materials, rather than go for the cheapest alternative. This has been helped by the fact that, with office rents so high, office furniture is now a much smaller proportion of the total cost of accommodation and therefore it becomes more feasible to buy food quality furniture.

Higher quality furniture has the advantage that it not only saves a company money — for the obvious reason that it will last longer — but it also has more immediate advantages of built-in accessories. Instead of cluttering desks with telephones, calculators and clocks, these items can often be incorporated into the furniture. The legs of desks can be used to carry the wiring, for example, and all the electrical inputs can be gathered together in a box attached to the bottom of the desk.

Although most offices are a hotch-potch of designs, materials, and equipment, new ideas are making inroads. Filing cabinets, for example, are often considered to be too space-consuming—so a modern trend is to go for shelving storage, rather than upright cabinets.

Much research also has been carried out into chair design, especially since more than 15m working days are lost each year through back complaints (more than all the days lost through strikes), and the bill to the National Health Service is in the order of £300m. The Civil Service, in particular, is anxious to improve its chair and desk designs so as to reduce the number of back complaints.

Safety factors are also playing an important role in the development of office furniture. Furniture must have rounded edges which will not snag on clothing and chairs and desks must be stable. Filing cabinets cannot be allowed to topple over; and the power leads which feed desk-top equipment must not present a major office hazard. The use of VDU's requires carefully controlled lighting levels white desk tops are designed to minimise reflected light glare.

Future developments in office furniture are likely to reflect the trend towards a compromise office, neither small and cellular but also not strictly open plan. Screens, for example, are likely to be increasingly popular since they are useful as display boards and allowing storage units to be attached, as well as making individual desks into complete "work stations" if needed.

The problem for the furniture manufacturers, however, remains one of whether demand will increase sufficiently to make new developments in design and efficiency worthwhile.

Conflicting opinions on the effects of automation

SOCIAL IMPACT

JOHN LLOYD

THE PROPAGANDISTS for office automation and its opponents usually occupy the opposing sides of the same coin. The first group stress the benign effects that computerised technology will have on the working environment and upon work practices — relieving the drudgery, speeding the flow of of information.

The others point to the increased rate of work exacted by the new equipment, its capacity for detailed surveillance of the worker, its capacity to dehumanise office work by cutting down on leisure or slack time.

It is therefore unusual to see a leading manufacturer of office products choose, as it were, from the contents of both sides in the best short description this writer has seen of the social purpose of office automation. (Note: "Taylurisation" in the ensuing quotation* refers to the adoption by late 19th century manufacturers of organised production line techniques, after the models developed by Frederick Taylor, the U.S. steel executive).

"The taylorisation of the first factories, developed as the answer to competition between companies, is a digitalisation of the productive process.

"At first, it enabled the labour force to be controlled and was the necessary prerequisite to the subsequent mechanisation and automation of the productive process. In this way, taylorised industries were able to win competition over the putting-out system.

"Data processing is, therefore, a continuation of a story which began with the industrial revolution, which incorporates the development of abstract terminologies within the development of technologies. Information technology is basically a technology of co-ordination and control of the labour force, the white collar workers, which taylorian organisation does not cover."

Co-ordination and control—this is letting the cat out of the bag, indeed! Yet is it not merely a novel, perhaps uncommonly blunt, way of expressing the self-evident truth? These figures on productivity lie behind the statement:

- Growth of office staff in ten years—45 per cent (against six per cent of total worker population).
- Productivity growth—4 per cent (against 80 per cent of the worker population).

In short, office staff simply are not delivering the goods in the same increasingly efficient way as their blue-collared counterparts. That is not, of course, their fault: they are relatively grossly undercapitalised, with only around £800 worth of equipment invested in them (on avearge), as against an average of £10,000 to £12,000 in a factory worker. Thus, like the blue collars, the white collars will soon begin to reap the benefits of greatly increased investments—namely, a radical change in work, and less of it to go around, coupled with a greater stress on regular, paced labour.

Or probably so. Care has to be taken about these predictions, as we are constantly reminded: there are those who claim that office work will increase as we adopt automated systems, (the faster we adopt them, the faster and the more it will increase), because the higher productivity will generate demand for more and more services, outstripping the productivity gains. This is possible but, on available evidence, unlikely.

Comprehensive

The most comprehensive attempt by the British Government to predict employment change, consequent upon the adoption of computerised systems, was characteristically balanced in its pronouncements on office work:

". . . it is not possible to make quantified comparisons of the staffing of the elctronic office, with its predecessor. In any case, in practice there will not have been a single jump from a fully manual to a fully electronic office; there will have been a slow, steady evolution from the one to the other, so that even when such offices do enter the realm of reality, comparisons with manning levels in earlier systems may not be easy.

"It is immediately clear, however, that a lot of conventional jobs would disappear. Word processing equipment would reduce numbers of typing staff . . . filing clerks could be greatly reduced in number . . . a third area of work that could obviously be affected would be that of message carrying. . . .

"On the other side of the equation, the only job-gains that can immediately be seen are the programming of the electronic systems themselves. . . ."

(The Manpower Implications of microelectronic technology: Department of Employment, HMSO, 1979.)

On balance, then, there is a careful forecast of job loss. And indeed, if office jobs are to be "taylorised" in the same thorough fashion as industrial jobs have been, then, on that analogy, we can expect employment to shrink, both relatively and absolutely.

Clearly, we can expect both an expansion of services and the creation of jobs in electronics, sofeware production and maintenance. But a commonsensical review of the immediate future suggests that the loss of jobs in the labour-intensive areas of the office cannot be compensated by situations vacant for programmers and electronic maintenance engineers—leaving aside the problems of transition from one skill to the other.

It is precisely this view which has caused concern to unions and governments worldwide. White-collar work has, together with the service sector, largely compensated for the fall-off in employment in the primary and secondary sectors.

When both of these previously growing areas are under attack, what is left but unemployment? In a characteristically imaginative way, the UK's wonder-growth union of recent years, the Association of Scientific, Technical and Managerial Staffs, has mounted a campaign which prominently figured a dustbin overflowing with white-collars, stressing that few (with the obvious exception of ASTMS) cared for the fate of the bureaucrat. The union does, indeed, have a strong impetus for caring: like others, it is losing membership, an unfamiliar and uncomfortable feeling.

This threat to their members' livelihood, and to their own strengths has rarely made the unions act in a reflexively obstructive fashion.

To be sure, there have been delays in bringing in automated office equipment, most notably in town halls where the unions are strong and bureaucratic procedure frequently leisurely. Certainly, there has been — again, in those areas where the unions have a purchase — an insistence on health and safety procedures for those working with visual display units, which has resulted in agreements being signed specifying rest periods of as long as 20 minutes in the hour.

Yet, the general progress of offices towards new systems has not been halted by unions—in the way, for example, the print unions have been able to halt the introduction of computer systems which by-passed their members in newspapers.

While this progress has been slow, most agree that it has been reluctance to invest in the new systems, rather than simple union of employee obstruction (though the latter may play a part in the former), which is the root cause.

Reaction

The unions' reaction has been conditioned by a general appreciation that while the automation of office (and other) tasks will cause a loss of work, a failure to do so will have even worse consequences.

This appreciation is, naturally, not shared by all union members, especially those on the sharp end of what is, or appears to be, a clear case of "technological redundancy." It will clearly be largely absent in those sectors which face little or no competition, as in local government. It is far from Japanese in its enthusiasm.

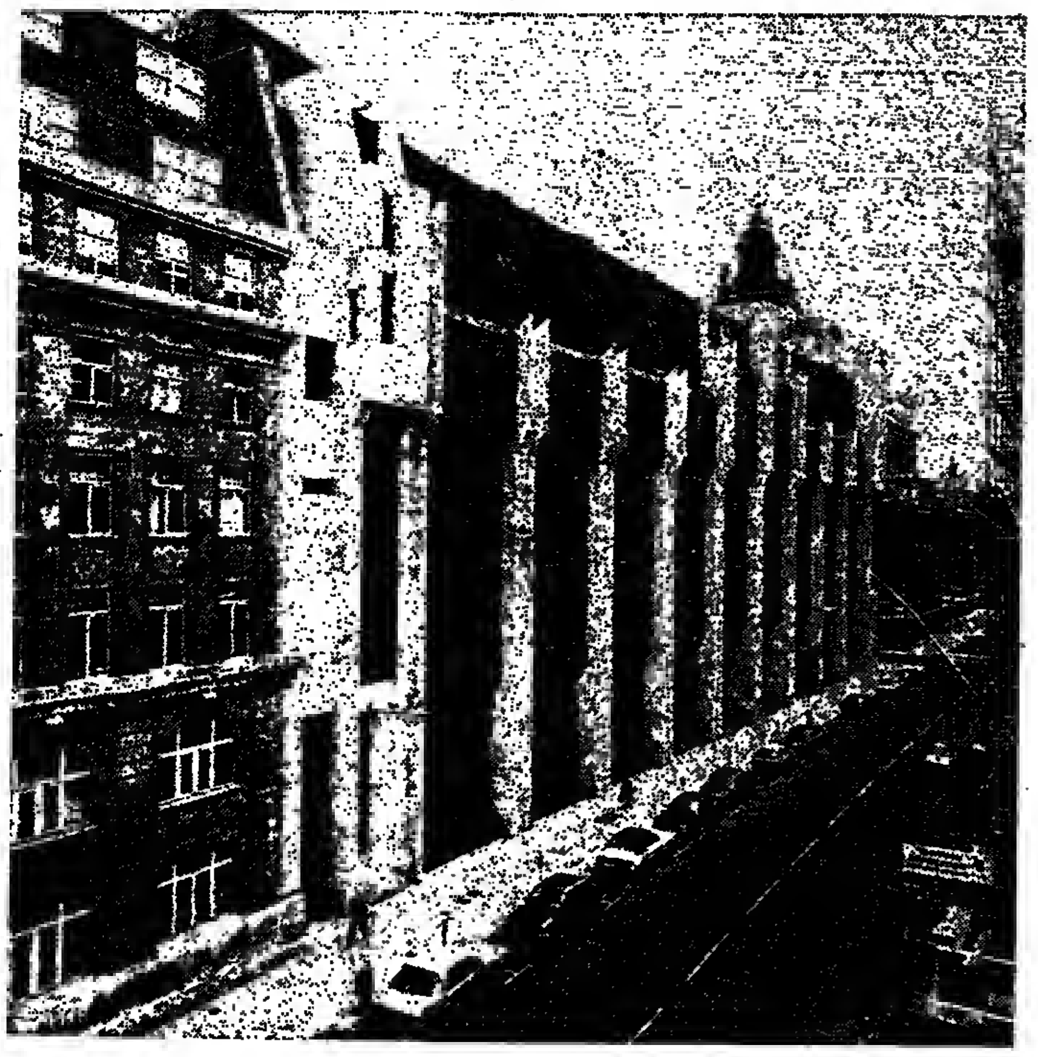
Yet, there is enough experience to show that European workers will embrace new systems where they enhance the work environment, where they result in an expansion of services and/or where they must be introduced if the company is to remain competitive. Where they are undertaken only to reduce labour, there will often be resistance. What else can be expected?

* *F. de Benedetti, managing director of Olivetti, in "The Impact of Electronic Technology in the Office" at the Financial Times Conference, "Tomorrow in World Electronics," London, March 21/22, 1979.*

Significant demand for higher standards

OFFICE BUILDINGS

DYAN SUDJIK



Caxton House, the Department of Employment's new building, next to the Central Hall, Westminster, shows what can be achieved in terms of environmental quality

Jeff Jones

WHATEVER EVENTUALLY does get built on the Green Giant site next to the Vauxhall Bridge, the affair has already demonstrated a significant shift in public attitudes toward office design.

For the first time, an anti-development lobby was able to mount a campaign based on technological issues.

Large-scale offices in city centres will soon be obsolete, thanks to technological advances, argued Mr. Stuart Holland, Southwark's MP. Personal computer terminals will allow managers to work from home, or at least in dispersed offices. And word processors will eventually mean paper-free offices, putting large numbers of secretarial staff out of a job, and raising the spectre of hundreds of empty Centre Points.

In the event, the debate was inconclusive. The Environment Secretary, Mr. Michael Heseltine, vetoed the Green Giant, simply because it was too big.

Given the present social system, it seems unlikely that many people would voluntarily opt to work from home. And so far the only buildings to have become redundant at an uncomfortably rapid rate are the big computer halls, built in the late sixties. The latest generation of computers is much smaller and needs far less air conditioning than its predecessors. But even if Mr. Holland overstated the case, his argument does highlight the importance of looking at the long-term consequences of office design.

There are, in fact, three different time-scales involved. The longest is the life of the building shell itself—at least 60 years. The shortest is the period of a few weeks over which changes to furniture and equipment layouts are needed. Somewhere between the two is the life of the partitioning between departments—around a couple of years.

Consequences

Apparently trivial decisions over the choice of material for the shell can have far-reaching consequences for the running costs of the building. But it is only recently, with the evidence of the disastrous failures of the 1960s, that long-term performance has become an issue. A brief energy glut allowed architects to design buildings with all-glass walls and poorly insulated roofs that have now turned into gas guzzlers on a massive scale—but which unfortunately show no sign of rusting away.

The form and shape of the building is just as important for energy efficiency as the choice of materials. Deep-plan buildings lose less energy because they have a proportionately smaller area of exposed walls for heat to "leak" away. But, equally, they need more power to operate artificial lights throughout the day. The trick is to balance the two—but at the same time not lose sight of the aim of producing decent architecture in the midst of juggling conflicting technical requirements.

It is worth remembering that the point about Green Giant which caused the loudest outcry was the sheer mediocrity of the design. Public expectations of new developments, particularly in sensitive city centre areas, have grown more demanding over the years in response to a deluge of simple minded anonymous blocks. And developers are finding for the first times that the market has shifted against them.

To build offices that can be let quickly now means providing higher environment standards, and that includes designs that look better.

Interior layouts are shifting away from open planning. After two decades in which architects and office planners have tried to foist the *burolandschaft*, or office landscape, approach on largely reluctant occupants, a series of studies has shown that offices without walls are not the panacea that the enthusiasts once claimed. Open plan can work in certain circumstances and for particular types of people, journalists, for one—but only if used with skill and careful planning. If used in a debased, cost-saving version the system can become chaotic.

Taken together, the result of all these conflicting pressures has been a reaction against the simple rectangular slab blocks of the 1960s, when buildings wer clad in curtain wall glazing and set in windswept plazas. For both visual and energy-saving reasons, facades and plans are tending to be much more irregular than they were, with deep overhangs to put windows in shade and stop the greenhouse effects that plagues many of the glass-walled buildings of the 1960s.

Arup Associates' new headquarters for the Central Electricity Generating Board, outside Bristol, demonstrates the approach applied to a building that was designed from the start to be a text book exercise in energy conservation.

Both interior layout and shape minimise energy use and help create a civilised workplace. It is a long, low building, divided into a series of interconnected pavillions which have deeply overhanging roofs that come three feet clear of the windows and put them in permanent shade. The pavillion form means nobody's desk is far from a window, making it possible to rely on daylight to provide most of the background light.

There is also a background level of fluorescent light, switched on automatically on dark overcast days, as well as individually controlled desk lights. This is an arrangement that reduces both the direct energy consumption of the lighting system, as well as the load on the air conditioning system needed to dissipate the waste heat from the light fittings.

But perhaps the most ingenious feature of the building is the network of holes cast into the concrete floor slabs. During the summer, cool night air is allowed to circulate through them, which reduces the build up of heat during the following day, and hence the air conditioning load.

The Department of Employment's new building next to the Central Hall, Westminster, shows what can be achieved from a speculative development, in terms of environmental quality.

The architects, Chapman Taylor and Partners, have produced a romantic-looking structure, complete with battlements and oriel windows, that manages to look at home in its distinguished surroundings. And thanks to the thick masonry walls, pierced by only the occasional window, heating bills are kept down, too.

There is still room for the purist approach, but it requires skill and care to make it work properly. Richard Rogers, for example, is designing the new Lloyds building in the City, using a specially developed triple glazed cladding that will have the insulating characteristics of a brick wall.

Partly because of the growing complexity of office machinery, and partly because of a trend toward more democratic looking workplaces, the once-rigid boundaries between industrial and office interiors are being blurred. Shop floors are now being finished to higher standards with better quality lighting, air conditioning and even carpeted floors. In offices with work station layouts now becoming increasingly common, thanks to the proliferation of computer terminal display screens, the "production line look" is making an appearance.

There are now so many power cables snaking round offices that hiding them away tidily without interfering with flexibility has become a major preoccupation. Floor and ceiling distribution networks are common place, and now specially design partitioning systems and even desks with built in power channels are being introduced.

Useful services that help to maintain productivity

CATERING MACHINES

DAVID CHURCHILL

THE PROVISION of food and drink in offices is an important part of maintaining office productivity. But it can also be very expensive for the company which has to maintain full-time catering staff.

Thus, as the recession begins to bite even more deeply into companies, so an increasing number are looking at ways to reduce costs of catering. And this often means switching to automatic vending machines for both hot drinks and quick snacks.

Moreover, the increasing use of flexible working hour systems in offices has made it even more essential to have a catering facility which can meet the differing requirements of staff at all times of the day and night.

Vending is essentially a three-part industry: the dispensing of hot beverages such as tea, coffee, hot chocolate, or cold drinks; snacks, such as chocolate bars, potato crisps, and other pre-packed items; and hot meals.

Trade sources estimate that the total number of drinks of all kinds that were sold through vending machines reached over 4bn last year, representing real growth of about a third since the beginning of the 1970s.

In terms of volume growth and sheer machine complexity, the vending industry has come a long way since World War Two, when the modern-style food vending systems were born. It became clear that the real future of the vending industry lay in servicing the needs of the factory and office worker. The hot coffee machine, an almost indispensable facet of American life, made its first appearance in the U.S. during 1947.

The vending industry in the UK has also come a long way from the early days of the 1950s and 1960s, when some "get-rich-quick" operators gave vending a very bad image.

By the end of the 1960s, for example, only about a fifth of UK installations were in the hands of specialist operators, compared with some 90 to 95 per cent in the U.S. It was no surprise, therefore, that consumer satisfaction with vending machines in the UK was low. This disenchantment was increased by the unreliable nature of most mechanical coin-operated mechanisms. Sophisticated developments, such as electronic controls, have enhanced the reliability of some machines.

The major growth area in vending is in offices and buildings, such as hospitals, which are open all night. Food-dispensing machines are proving increasingly popular, helped by the enormous escalation of costs of traditional catering, particularly for labour and such foods as vegetables.

Working hours

With the increase in flexible working hours, overtime and shift working, there is a real need to provide a back-up food and drinks system to the conventional, manual, and frequently expensive cafeteria. In many cases, however, the use of automatic dispensing machines is clearly designed to supplement other catering services, such as the traditional works canteen. But the development of the microwave oven has proved a major step forward in providing hot meals where no suitable alternative is available.

As a result, new equipment is now being brought into Britain in increasing quantities to enable the consumer to buy hot hand snacks, hot "fork" snacks, and hot "ring-pull" canned products.

Sales of smaller drink-vending machines are rising, according to trade sources, and are estimated to be around 5,000 a year.

One new development in the drinks sector of the vending market is the growth of "in-cup" systems. This involves pre-measuring drink ingredients into each cup before the products leave the factory, so that the machine itself merely collects the cup and adds hot or cold water. The cup design for this system has a "lock ridge" which seals the cups into interlocking stacks for simple insertion into the machine.

Oddly enough, although this ingenious idea originated in the U.S., it made little progress until it was introduced into Britain and developed by a number of manufacturers, including the Klix division of Mars. The UK vending industry is, however, still largely dependent on imported machinery to meet its requirements.

It is not only in office catering, however, that vending plays an important part. Many offices now have cigarette vending machines; in total, cigarette sales through vending machines top £100m.

Other developments in the market, now being tried by a few offices, are extensive "automatic shops," selling a wide range of products from tights to flowers, which enable office workers to save time by shopping at work.

Some vending machine operators would go so far as to predict that, by the end of the decade, automatic shopping in offices may become as accepted a part of office life as the coffee machine is today.

Demand for more flex ibility in office design

DESIGN

MICHAEL WILTSHIRE

TWENTY YEARS ago, the German concept of *bürolandschaft* — office landscaping — was being heralded as a brilliant solution to office design problems. The impact of the formula was considerable, but planners now look for less regimented, more personalised solutions.

There is much talk, today, of the word processor and the outcome of rapid developments in business technology. But, for all the progress, many British offices "are still appalling places to work in," according to one leading designer. While more than a third of Britain's workforce are employed in offices, the much-discussed "office of the future" may yet seem a very long way off.

The introduction of new technology is often a striking contrast to the uneconomic interior design of many UK offices where, it is claimed, 30 to 40 per cent of space is frequently wasted.

"Badly designed offices lead to poor communications, inefficient workflow and money wasted on rent and rates," comments a spokesman of Space Planning Services (SPS), one of the UK's leading independent planning consultancies.

Inefficient design also results in undue stress on management and staff who spend as much as a third of their working lives in offices.

In Germany and Scandinavia, custom-built office buildings have tended to be the rule, but in Britain, where there was a rush of speculative office building in the 1960s, the outcome of the building boom has "adversely affected the working lives of millions of office workers and hindered the operational efficiency of the companies which employed them," comments Mr. Roger Henderson, managing director of SPS.

While many buildings of the 1950s are now ripe for refurbishment, many older buildings have more scope for interior adaptation and improvement than Britain's speculatively designed match-box-shaped offices of the 50s and 60s which, he says, are notoriously inflexible. All this adds up to a considerable challenge to today's office planners, architects and for the 15 or so independent design consultancies in the UK.

The weaknesses of the *bürolandschaft* formula are now obvious — but the system, invented by the Schnelle brothers in the late 50s, seemed, at the time, to be a revelation of the office of the future, comments Mr. Francis Duffy, a partner of Duffy Eley Giffone Worthington (DEGW), of London.

The German offices of the early 60s set the trend with their sense of space and order, carpeting, continuous ceilings, new-style furniture and plants. But, in retrospect, the problem with office landscaping was that a mere package design solution must be wrong — "it cannot be sensitive to variation in organisational form," comments Mr. Duffy.

Implicit in *bürolandschaft* is the idea that all organisations are (or ought to be) the same, with an equal emphasis on communications, lack of hierarchy, flexibility and team spirit. This is obviously false, says Mr. Duffy.

"Different kinds of business are structured in different ways; they have different technologies and values, and above all, different traditions in accommodating themselves in offices."

Variations

There is a world of difference, he emphasises, between insurance and law, between a sales office and a research establishment. No one type of office layout or even office building shell can accommodate them all. Worse still, the enthusiasm for the *bürolandschaft* package has led to a vast number of expensive and highly inflexible building shells which are far too "deep" to be useful.

The fact that these buildings are full of super-flexible furniture must be an increasingly small consolation to their owners, since the labour of maintaining these layouts is now very apparent, he adds.

With skill and dedication, *bürolandschaft* can be controlled; without these resources, densities rise, circulation clogs and the quality of the environment declines. Nothing is more fragile than an open-plan office layout, he suggests.

The positive consequences of the system are less clear but more far reaching—"office landscaping has taught Europeans the American lesson that office planning should be taken seriously, that planning and talking to the user are vital, that the user is prior to the design of the building shell, that buildings can be made to reflect organisational requirements."

Certainly, office landscaping has also stimulated furniture design; manufacturers now see themselves as selling "systems" of integrated components to accommodate all office tasks.

Office work, organisation, building, space management, are all changing—but no single formula, even one so brilliantly conceived as *bürolandschaft*, can possibly cope with the wide diversity of present conditions, let alone those of the future, says Mr. Duffy.

"To go back to the dumb partitioned offices, to the low level of thinking about office design which was tolerated in Britain in the early 60s and which led to the miserable stock of speculative and custom-built offices which we see around, would be a disaster. We *must* be able to do better than that."

Office Planning Consultants, of London, says that since the 60s, managements have been growing aware of the sheer economics of a streamlined and effective office administration—that it is as essential to maximum profitability as an efficient production line in a factory.

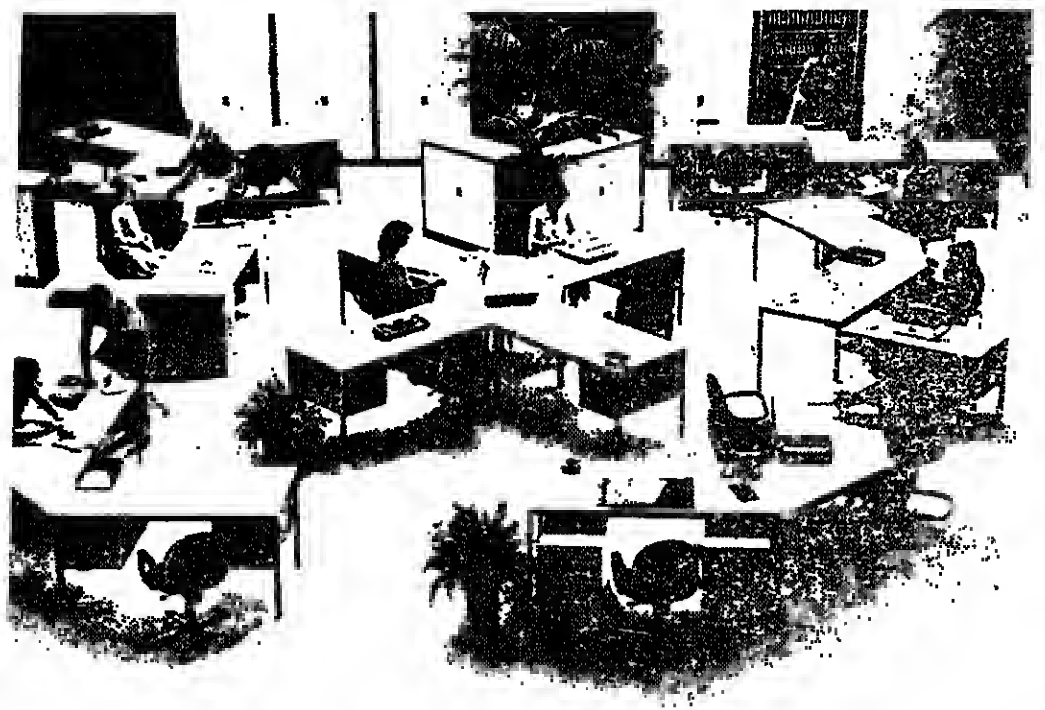
OPC suggests that the term "interior designer" must not be confused with the "interior decorator." In countries outside the UK, he is accorded the proper title of "interior *architect*," since the subject extends far beyond the mere consideration of aesthetics.

One of the main problems facing office planners in the 1980's is the integration of new technology within an existing building with all its in-built deficiencies and constraints. Each company has different needs and planning solutions must be individually tailored to meet those requirements.

Complex problems

Lighting, for example, can pose complex problems where a large proportion of time is spent with VDUs. The introduction of terminals and VDUs into a general office also means special facilities for distributing data cables.

Today's requirements will almost certainly not be tomorrow's and the office layout should be capable of being changed readily and inexpensively, says Mr. Henderson of SPS. The one certainty about the future is its unpredictability, he adds.



A RANGE of Dutch office "systems furniture," which contains tables, drawer blocks, cabinets, filing systems and conference units all of different shapes and heights, but which interlock with complete precision to form highly flexible formations, is now available in the UK to "help increase office efficiency by up to 30 per cent," according to the distributors, OEM of London.

Called Van Blerk Systems Furniture, the system is claimed to provide every member of staff with a "work station" that suits perfectly the workload of its occupant, his or her function in the office system, and the need for a "sense of privacy" and independence," so essential for a contented staff. The distributors of the system claim that the advantages of systems furniture over traditionally based office configurations are comprehensive, including the doubling of a workforce in the same area, thereby maximising space available; the lowering of energy costs such as heating and lighting, reduction in time wasted in file retrieval, and the reduction in staff turnover.

A general office area at Whitbread London's new headquarters in Luton where Space Planning Services were responsible for planning and interior design. The VDUs are linked to the computer suite in the building and are used by payroll and other accountancy functions.

There is a strong emphasis nowadays on space management —"there is a continuing space planning process going on after a client has moved into a building," says Mr. John Worthington of DEGW, who has been much impressed by planning concepts in the U.S. "The key role of the space planner is how he transfers his concept of how best to use the space . . . one of the things we have set up are training sessions for our clients."

Nowadays, the trend is for a "mix" of open-plan and cellular design, with a growing demand for "personal space."

"There is a greater recognition of the individuality of the office workers," says Mr. Peter Liley, design director of the Heal group in London. "Everyone needs his or her own defensible territory, a personalised space where he or she can 'see' an imaginary line on the floor. And anyone who steps over that boundary is a guest, or an intruder. Although the office plan may be quite 'open' each worker's identity is being expressed within the area in which he works."

Although some of the latest office furniture is becoming highly sophisticated — particularly, German and U.S. products —Mr. Liley believes that, in Britain, "the game will eventually go to the company that can produce a very simple, flexible and dignified system for integrated work surfaces and storage units."

Any office furniture manufacturer wanting to sell in Europe must first consider the increasingly high standards of the lucrative German market, comments Mr. D. G. Davenport, marketing director of the newly-reformed Flexiform company, manufacturers of filing and storage systems.

"In Germany, for example, you can't sell a desk that doesn't have soft, rounded drawer-fronts; no angular corners. Such standards are not true in the UK, yet.

"The Italians are wild on design—perhaps a bit 'off' in function—but for visual appearance, they're absolutely stunning."

In Sweden, legislation was established in 1977 whereby the workforce has to become involved in aspects of office planning, through workers' councils. In Britain there is an increasing awareness among the white-collar unions not only of the impact of new technology, but of the importance of improvements in the office environment in general.

Mr. Roger Henderson, managing director of Space Planning Services, of London, says that many companies are faced with problems created by over-crowding, inefficient use of space, and the unsatisfactory outcome of stop-gap measures, taken somewhat haphazardly over a period of time. Such firms recognise the need to achieve a long-term solution without fully appreciating the alternative paths which may be open to them, he says.

INSIDE THE LABOUR PARTY

BY MARGARET VAN HATTEM

Why the Left is gaining ground

MR. RICHARD CRAWSHAW, who appears in the Guinness Book of Records as a long-distance walker and in the House of Commons as a deputy speaker, is by all accounts a nice man, an active constituency MP and a proven vote-winner. Yet he will almost certainly be dropped as an official Labour candidate in Liverpool at the next general election.

In the 16 years he has held the Liverpool seat of Toxteth, it has changed from a marginal Tory/Labour seat to a safe Labour one which he retained at the last election with a comfortable 22.7 per cent majority. The swing against Labour there, at 2.1 per cent, was well below the 5.2 per cent national average. But even his staunchest supporters say he has "not a cat's chance in hell" of being reselected for any of the redefined Liverpool seats to be fought in the next election.

Similar doubts hang over two of his fellow Labour MPs in Liverpool, Mr. James Dunn at Kirkdale and Mr. Eric Ogden at West Derby, who have also held their seats for 16 years with similarly comfortable majorities at the last election.

The phenomenon is not confined to Liverpool. Following last month's Labour Conference vote for automatic reselection of parliamentary candidates, many hitherto comfortable MPs are beginning to question the nature of parliamentary representation, to examine their relationships with their constituency parties and to ask what on earth is happening to the Labour Party in the constituencies.

The first reaction has been a spate of charges that the Labour Party is being seized by small, extreme left-wing groups. They have entrenched themselves in moribund constituency parties, the accusations run, and are now pushing for real power. This is considered sinister because they often operate in seats which the party cannot hope to win, have no Parliamentary representatives and are therefore "unrepresentative" of Labour voters.

A closer look suggests that things are not quite so simple. The decisions taken at the last party conference indicate that the Left has greater momentum than the Right. But the extreme Left cannot be said to control or even dominate the party—where it is strong, its strength derives partly from a high degree of activity and organisation, but equally from the fact that most active party members do not object.

More important, they appear to be doing nothing dishonest or unconstitutional—there is nothing to stop the right wing from adopting the same tactics, but they are not doing so.

The Blackpool conference was, for the Left, a triumphant climax to several months of frenetic activity in the constituencies and among the unions, winning support for their resolutions and getting supporters sent as delegates to Blackpool. A host of left wing groups, including the long-established Campaign for Labour Party Democracy, the Labour Co-ordinating Committee, Clause IV, the Institute for Workers' Control, Independent Labour Publications and the Militant Tendency, all set aside their differences to form the Rank and File Mobilising Committee, an umbrella group hastily convened two weeks before the party's Wembley conference on May 31, to ensure maximum impact for the Left.

They did not have things all their own way at Blackpool. They were defeated on the crucial issue of wider control over the writing of the election manifesto; a resolution explicitly rejecting any form of incomes policy was, although carried, somewhat confused by an amendment explicitly providing for one; and two unequivocal resolutions calling for "nationalisation of the top 200 monopolies which control 85 per cent of the economy, with compensation paid only on the basis of proven need" (sometimes referred to as the mating call of the Trotskyist Militant Tendency) were unequivocally thrown out. However they won significant victories against considerable opposition on unilateral nuclear disarmament, banning sales of council houses, withdrawal from the EEC, reselection of MPs, and a partial victory on election of the party leader.

Reacting to their defeat at the hands of the Left, right wing MPs focused attention on the emergence of the Militant Tendency, which had been thrown into the limelight a few months earlier by the publication of Lord Underhill's report on Trotskyist infiltration in the party.

The Militants first emerged in the early '60s, an offshoot of the now defunct Revolutionary Communist Party, and set up their own newspaper, Militant. The paper still provides a focal point for their activities and is sold at most party gatherings, as well as on streets, shop floors, universities and polytechnics, with a national circulation currently estimated at around 10,000 a week.

Active supporters of Militant (in accordance with Labour Party rules they have no official membership) include a large number of students and Young Socialists, but also a lot of trade unionists — clerical workers, printers, bakers, boilermakers and even local government officers. They make no bones about their political beliefs, which rarely depart from the writings of Lenin, Marx and Trotsky, whom they quote frequently and at length, nor about their aim to make Britain a fully socialist state with the economy, including all international trade, firmly under workers' control.

That is their goal and they are extremely reluctant to compromise, often to the irritation of the other Labour left-wingers with whom, for the moment, they are content to co-operate.

However they admit quite cheerfully that they are not going to succeed tomorrow, in the next five years, or possibly for many years to come and insist the change must and will come about by democratic means, largely due to an "inevitable" collapse of the capitalist system. Further, many of them say that a socialist Britain could not survive if the rest of the industrialised West remained capitalist. It would either be defeated or become Stalinist which in their view, amounts to almost the same thing.

How then, with so little to promise in the way of concrete results in the immediate future, do they manage to attract and channel so much enthusiasm, dedication and hard work to and in the Labour Party? Peter Teaffa, editor of Militant since 1964, estimates the number of active Militant supporters in Britain at 2,000, with many more less-actively involved supporters.

Militants and many non-Militant party members dismiss as nonsense right-wing claims that they "control" 100 constituency parties, but they do claim a strong presence in at least 60. They are particularly active in Liverpool, London and Brighton; have around 50 full-time paid workers and a slightly smaller number of offices throughout the country. Contributions to the paper's "fighting fund" average around £2,000 a week and they are reported to have raised £600 in one day at the Blackpool conference. Although no MP is an active supporter, a relatively small but growing number of local government councillors, union and party officials are.

In some areas, the Militants have directed their main efforts to getting supporters elected to local government councils and committees. They have succeeded in the London borough of Lambeth and to a lesser extent in Islington, Hackney, Hillingdon, Brent and Lewisham.

The reason for Militant's success is partly that they are the group most actively involved at grass-roots level within the party as a whole. They are regular attenders of party meetings and hold special meetings for Militant readers and sellers. "They're a breath of fresh air." according to a Liverpool councillor, a middle-aged member of the old unionist Left who welcomes Militant while disagreeing strongly with some of their views.

Perhaps a greater part of the appeal of the Militants lies in widespread disillusion within the party over the Wilson and Callaghan Governments—their alleged failure even when they had strong Parliamentary majorities to implement Labour policies on health, social services, race relations and comprehensive education, and above all, over the 5 per cent pay policy introduced in the last year of the Labour Government. In this climate, calls for tighter constituency control over MPs, particularly over the former Ministers of these Governments, are bound to flourish.

With the party in opposition and no prospect yet of an early election, there is little real pressure on Right and Left to knuckle down in the interests of party solidarity. Moreover the Left, though on the upswing, is still so far from attaining its goals that the many groups which make up the present broad Left coalition are under little pressure to clarify their not insignificant differences.

The active Left in the party draws together a wide range of trends and traditions—the old unionist Left, the "new" Left, the campaigners for nuclear disarmament, some Tribunites (many of them, considered quite radical 10 years ago, are now fairly centrist) the Trotskyists. Within this broad group, the Militants have undoubtedly played an active part but their importance and influence has been exaggerated.

Their main effect so far has been to shake the party up a bit. There are already signs of counter-reaction from the Right, among groups like the Campaign for Labour Victory.

But even on the Left, the Militants remain somewhat isolated. They are perhaps the Mormons of the Labour Party, "nice, terribly sincere" according to one London left-winger, "but a bit boring, the wrong class for some people and, you know, a bit odd." The Militants themselves concede that they do not have broad electoral appeal. Although Militants stood for the party in three seats at the last election, none of these was winnable and their chances of picking up more than one or two winnable seats at the next election are slim.

They associate themselves to some extent with active left-wingers in the Parliamentary Party, such as Dennis Skinner, Tony Benn, Eric Heffer and Michael Meacher, inviting them to speak at meetings or write for Militant. Despite a certain cynicism about MPs, they would probably find Mr. Benn less unacceptable as leader than any other candidate. But they have few illusions about the gap between them and the rest of the Left and know that when the time comes to shake hands, they may be thanked for their hard work and then unceremoniously set aside as the others race off to grab the party's centre.

The MPs, for their part, are careful to draw certain distinctions. Mr. Meacher, MP for Oldham West and one of the most active left-wingers, probably speaks for many on the Parliamentary Left when he says "I don't believe socialism means nationalisation. The world has changed since Marx. To talk of nationalising the top 200 companies is ludicrous and if Tony Benn were leader, it wouldn't happen."

This is the first of a series of articles on what is happening to the Labour Party. Tomorrow Christian Tyler will discuss how these developments are seen by the trade unions. Articles about individual constituencies will appear in the next few days.

Letters to the Editor

Europe's steel imports

From Mr. F. Gillett.

Sir, — Your editorial, "An open crisis in steel" (October 29) has repeated what is, I am afraid, becoming the popular myth: that the steel industries of the developing world are a main factor in the EEC's problem. This is not so.

When the German or French steelmakers complain that imports take 30 per cent to 40 per cent of their respective home markets, they are talking mainly about each other's exports (and the exports of other EEC partners). Imports from third world countries have played only a minor part in the EEC steel crisis.

Steel imported into the EEC from third world countries accounts for only about 8 per cent of the total 110m-tonne steel consumption in the EEC market. Of these imports, about two-fifths come from other Western European countries, such as Austria, Spain and Sweden; another quarter comes from the USSR and Eastern Europe; and most of the rest comes from Japan (mainly) and Australia, Canada and South Africa. The rising steel industries of countries like Brazil, Mexico and South Korea are supplying only about 3 per cent of EEC's imports from third world countries and that is about one-quarter of 1 per cent of EEC's steel consumption.

The principal effect of steel imports from outside the EEC has been to upset prices on the EEC market from time to time. When the market is sensitive — as it normally is these days — news of only a few thousand tonnes of East European steel on offer at low prices can start buyers looking for fresh rebates off the prices of their main EEC suppliers. There are bilateral agreements between EEC and third world countries which are designed to limit this destabilising effect, although they are not proving entirely successful. Imports of steel from third world countries are, in any case, not the cause of the fragile state of the EEC market.

On the export side the developing countries, together with the Communist bloc, account for over 50 per cent of EEC's steel exports, and this proportion has tended to grow during the 1970s. If the historical trend continues, and a study of the situation suggests that it will, then the rising steel production of newly industrialising countries will barely keep pace with their rising steel consumption. Their steel imports will therefore tend to grow, rather than decline, at least for the next ten years.

First things first: the EEC steel industry has to put its own house in order. It has also, like the Japanese industry, to learn to live with a protectionist U.S. Rising steel production in the developing world is not yet a major problem for the EEC.

F. R. Gillett.
Timber Crest, Blakes Road, Wargrave-on-Thames, Berks.

Overdraft facilities

From Mr. P. Rodcliffe

Sir,—I was interested to read Anthony Horns's article (October 24) titled "Farce on Black Wednesday." Although I agreed with most of which he wrote, I would like to take him up on his point concerning corporate treasurers and "round-tripping."

The banks allow industrial companies significant freedom to finance their working capital requirements through flexible overdraft facilities. In these particularly difficult times, with little sign of recovery in the immediate future, it is important that the banks and industry have mutual trust and confidence in each other and that the facilities made available are not abused. By abused I refer in particular to "round-tripping."

It may be argued that it is the responsibility of a company to take advantage of all reasonable opportunities available to increase its value to the benefit of the shareholders: jeopardising relations with the bank may not, in the long term, be in their interest.

I speak not only for myself but also for a number of other treasurers of major companies in this country who have neither unusually "formidable bank managers" nor "wet managing directors" but who understand the wider implications and do not "round-trip," thereby helping to avoid the need for banks to raise their base rates to counteract these manoeuvres and adding further to industry's already heavy burden.

P. J. J. Radcliffe.
Michaelmas Cottage, Streetly End, Horseheath, Cambridgeshire.

Godalming was first!

From Councillor B. Souter

Sir,—J. E. Harris (October 30) will doubtless be pleased to hear that Godalming is indeed to celebrate its electrical centenary in September, 1981. Plans are well advanced in conjunction with the Southern Electricity Board and the Electricity Council for a week of celebrations from September 19 to 26. There will be both local and national events and Mr. Harris and other interested parties will be most welcome to attend.

B. R. Souter (Councillor).
Godalming Electricity Centenary Celebrations Committee,
Charterhouse, Godalming, Surrey.

Power from the sea

From the Chief Engineer, Civil Engineering Division John Laing Construction

Sir,—We refer to the article of October 27 on the subject of power from the sea. Elaine Williams quoted figures for the cost of power generated as 20p/kW.hr for Ducks and 30p/kW.hr for Sir Christopher Cockerell's rafts. We cannot speak for Sir Christopher, but having worked in close association with Stephen Salter for the last two years on the Edinburgh-Scopa-Laing wave energy device, we can speak for Ducks. The figures quoted by Elaine Williams are in fact for an earlier power take-off system.

A year ago when the annual report was prepared, the estimated range was 5p to 8p/kW.hr and there is every prospect of reducing this when the current wide tank testing on spines has been completed.

The dramatic reduction in costs was mainly due to three breakthroughs: a completely sealed power take-off system based on gyroscopically mounted flywheels and, an ability to generate synchronous AC suitable for direct connection to the grid, plus a great reduction in the length of cable involved in such connections.

We would point out that the independent consulting engineer appointed by the Department of Energy has produced a confidential report which does not disagree with the figures we produced.

F. S. Nundy,
John Laing Construction.
Page Street, N.W.7.

Uncollectable moneys

From the Managing Director, Tax File

Sir,—Now the Committee of Public Accounts has identified a likely loss of more than £2bn in tax evasion (October 30), an independent committee should investigate the wisdom of trying to collect this money.

Tax evaders win little sympathy among most honest taxpayers and the fairness of collection is beyond question. Would taking this money out of the economy, however, be socially desirable? This finance will be revolving in the private sector, helping to sustain it and providing vital employment. If Government collects and does not plough this tax back into the private sector, serious damage could be done to an already hard-hit area.

As much of the money passes privately in small amounts between individuals, tax collection is nearly impossible in most instances.

The means of attempted enforcement—a substantial increase in the number of tax inspectors—would not only add to the cost of the civil service, but could lead to methods of investigation unacceptable to all but the extremes in our society.

Dennis J. Fowle,
Tax File,
4 Valentine Place, SE1.

Dockyard's progress

From Commander F. Elvy, RN (Retd.)

Sir,—While I admire Mr. Cutler's heartwarmingly loyal defence of the Royal Navy and the Dockyards (October 27) I must dispute his facts.

He is certainly under a misapprehension if he believes that wages and salaries in Devonport Dockyard are low. On the contrary, they are among the highest in the Plymouth area.

The new nuclear submarine refitting complex to which he refers and the only slightly older frigate complex, with its three covered graving docks, provide Devonport Dockyard with splendid modern facilities. It is seriously to be doubted however, whether the increases in productivity being achieved in any way justify their capital cost.

On the other hand, when Mr. Cutler rises in defence of the employment of naval officers in the Royal Dockyards, he has my wholehearted support. I only know of one member of the Royal Corps of Naval Constructors (now incorporating the former members of Royal Naval Engineering Service) who by any stretch of the imagination could be described as a qualified and competent professional weapons engineer.

What is not generally known, is the mean campaign that a minority within the Institute of Professional Civil Servants has been waging against such employment of naval officers. Equally unknown, of course, is the chicken-livered response of the Dockyard department to that pressure.

As one who served in a reasonably senior managerial post within Devonport Dockyard for four years, may I congratulate your reporter, William Hall (October 21) upon the accuracy and the perceptiveness of his article. The only error that I detected was his statement that "the Port Admiral has much more say than the general manager." In my experience that is no longer so.

My abiding impressions of my last four years service in "the yard" are of pride in the skills, talents and accomplishments of the men and women of Division 4, and of overwhelming frustration at the ineptitude of the generality of the management and its helplessness in the face of incompatible directives it received from the Dockyard department.

(Commander) F. J. Elvy, RN (Retd.),
The Old Rectory, Diptford, Devon.

Spending on housing

From Mr. R. Musgrave

Sir,—As secretary of a residents' association which is trying to prevent a local authority bulldozing some houses, I doubt that housing is Islington's biggest problem, as your article claims (October 28). Neither Islington nor any other local authority "needs" to spend vast sums on housing. The reason vast sums are involved is that there is no limit to the amount of other people's money that incompetent do-gooders like throwing away, and housing just happens to be their cause celebre at the moment.

Your description of housing as the "permanent slum area of British politics (Leader October 24), was very apposite. I feel the main absurdity in this area, and the cause of so much wasted money, is the attempt to raise housing to uneconomically high standards. Houses are frequently demolished and replaced on the grounds of dampness despite the absence of any proven relationship between dampness and health. Houses are frequently demolished and replaced without bothering to look at their most important characteristic: the soundness of their basic structure.

If we scrapped and replaced all cars more than two years old, then the amount that would "need" to be spent on cars would be astronomic. Local government is often engaged in a similarly ludicrous operation in the area of housing.

R. S. Musgrave.
24, Garden Avenue, Framwellgate Moor, Durham.

Today's Events

GENERAL

UK: Union leaders and senior shop stewards at BL meet in Coventry to assess support for proposed strike action on pay.

One-day strike by National Union of Seamen over Cunard dispute.

Agricultural workers' pay talks.

Trustee Savings Bank, as member of Visa International, now issuing its own Visa sterling travellers cheques.

British Airways offering half-price rates on Concorde flights to and from the U.S. for members of families accompanying a full-fare paying passenger.

Pensioners' £1 Awayday to Anywhere day return rail ticket comes into operation for an experimental period.

Mr. Norman St. John Stevas, Minister for Arts, gives Lord Alport Lecture, City University, Northampton Square, E.C.1, 6.15 pm.

Overseas: European Parliament in plenary session to discuss 1981 Community Budget, Luxembourg.

Mr. David Howell, UK Energy Secretary, in Oslo for two-day talks on North Sea Oil with Mr. Arvid Johanson, Norway's newly-appointed Minister of Petroleum and Energy.

Two day Financial Times conference on Investment in Malaysia begins in Kuala Lumpur.

Trial of Mr. Edgar Tekere, Zimbabwe Cabinet Minister, accused with seven bodyguards of murdering a white farmer.

Italian companies to pay 1 per cent less from to-day for money borrowed to finance export operations.

PARLIAMENTARY BUSINESS

House of Commons: Motion on EEC document on aids for milk and pig production. Motion on the National Dock Labour Board (Increase of Loans Limit) Order. Motions relating to Consumer Credit (Advertisements) and (Quotations) (Amendment) Regulations.

House of Lords: Broadcasting Bill, report.

OFFICIAL STATISTICS

Building Society house prices and mortgage statistics (third quarter).

COMPANY MEETINGS

See Week's Financial Diary on Page 25.

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Dunlop Zimbabwe offer for sale

BY OUR SALISBURY CORRESPONDENT

The Zim$9m (£5.8m) offer for sale this week by Dunlop Zimbabwe is by far the biggest in the history of the Zimbabe Stock Exchange and the second public issue since independence in April this year.

The group's British parent, Dunlop Holdings is offering to sell 5m of its shares—20.8 per cent of the issued capital of 24m shares—at 180 cents each. The issuing house is Standard Merchant Bank, a subsidiary of the Standard Chartered Bank.

DZ is certainly not going public because it needs the cash as its balance sheet position in mid-1980 shows net current assets in excess of $7.4m (£4.8m) and net assets of more than $19m (£12.3m).

The purpose of the issue Dunlop says is to enable the Zimbabwe public to identify more closely with Dunlop Zimbabwe and to obtain a listing for the company's shares on the Zimbabwe Stock Exchange.

In addition it will enable Dunlop to establish a share participation scheme for its 1,300 employees with the group planning to hold 900,000 shares (about 3.75 per cent of the equity) in trust for employees. This means that after the issue almost 25 per cent of the capital will be held inside Zimbabwe.

The basic motivation for the issue is therefore political rather than financial.

The group has a monopoly as sole manufacturer of tyres and tubes in Zimbabwe protected by stringent import controls.

In addition during the UDI sanctions period, Dunlop which was cut off from its parent, and unable to repatriate profits and dividends, used blocked funds to diversify into light engineering, the manufacture of wood flooring, furniture and sports goods, fire protection systems and property.

These diversified activities account for some 15 per cent of turnover and profits, with turnover last year amounting to just over $20m (£13m).

Although profits stagnated during the period when the Zimbabwe economy suffered from the escalating war and economic recession, the offer for sale prospectus forecasts a 30 per cent rise in after tax profits this year and a further 20 per cent increase next year.

Despite its size, the Dunlop issue is expected to be at least twice subscribed as the terms of the offer are extremely attractive under current market conditions.

The average dividend yield obtainable on good quality industrials on the ZSE is currently 4.5 per cent (net of tax) but Dunlop is coming in on an offer yield of 6.7 per cent with the group forecasting a 12 cents dividend, one and a half times covered by earnings of 18 cents in the year ending December 31, 1981.

In addition, the earnings and dividend forecast look to be extremely conservative. In the nine months to September this year Dunlop earned 12.5 cents a share and is expected to earn at least 17 cents a share for the full year to December 1980 as against the profit forecast of 18 cents a share for 1981.

This means that the dividend is likely to be modestly higher than the 12 cents being forecast and the yield is then even more attractive.

The Zimbabwe industrial share market has moved up almost 30 per cent since the budget in July mainly due to the acute shortage of scrip in the market of extremely high domestic liquidity.

Accordingly, the Dunlop issue is likely to be very well received and the consensus view is that when the shares are first listed on November 24, they will open at a premium of around 15 per cent. If this does happen then other multinationals—the Turner and Newall group is named as one obvious possibility—are likely to take the plunge too.

BOARD MEETINGS

The following companies have notified dates of Board meetings to the Stock Exchange. Such meetings are usually held for the purpose of considering dividends. Official indications are not available as to whether dividends are interims or finals and the sub-divisions shown below are based mainly on last year's timetable.

TODAY

Interims—Graig Shipping, P. Panto, Ropner.

Finals—Bolly Trust, Majedie Investments.

FUTURE DATES

Interims—

Continental and Industrial Tst.	Nov. 4
De Vere Hotels & Restaurants	Nov. 7
Foodex Agricultural Industries	Nov. 13
Futura	Nov. 10
Great Portland Estates	Nov. 10
London & Midland Industrials	Nov. 10
Rexmore	Dec. 5
Rush and Tompkins	Nov. 7
St. George's Land (Worcs.)	Nov. 4
Torey	Nov. 10
Usher-Walker	Nov. 5
Warner Holidays	Nov. 5

Finals—

Allied London Properties	Nov. 4
Bailwey	Nov. 5
Bridport-Gundry	Nov. 7
Messina (Transvaal) Devlpmt.	Nov. 27
Samuel Properties	Nov. 3
Wellco	Nov. 8

RESULTS AND ACCOUNTS IN BRIEF

CAMPARI INTERNATIONAL (leisure, camping and boating equipment group)—Results for year to May 31, 1980 reported on October 7. Shareholders' funds £8.05m (£7.75m): cash and bank balances £87,912 (£212,814); loans £1.68m (£600,000); overdrafts £6.23m (£7.65m). The chairman says he is looking at the current year with conservative optimism. Meeting, Campari House, Staples Corner, NC, November 17, at noon.

AMBER DAY HOLDINGS (clothing manufacturer and retailer)—Results for the year to May 3, 1980, announced September 24. Shareholders' funds £6.27m (£4.32m), bank and cash balances £514,000 (£118,000), stocks £6.2m (£5.2m). Meeting: Churchill Hotel, Portman Square, W1, November 18, noon.

LUNUVA (CEYLON) TEA AND RUBBER ESTATES — Interim dividend 6p (5p—total 12p) for 1980. Revenue for nine months to September 30, £124,268 (£92,500). Tax £43,905 (£37,342). Earning per £1 stock 9.41p (6.46p). Ultimate holding company is Harrisons and Crosfield.

SCOTT'S RESTAURANT — Taxable profit for half year to June 30, 1980, £29,249 (£65,477). Turnover £1.1m (£930,637). Tax £18,000 (£34,000).

S. LYLES (carpet spinner and dyer)—Results for the year to end-June, 1980, announced October 1. Shareholders' funds £3.04m (£2.99m); bank overdraft £908,695 (£1.25m); cash in hand £2.12m (£1.71m). Historical pre-tax profit of £592,000 (£963,000) reduced to £341,000 (£560,000) on CCA basis. Meeting, Ossett, November 21, noon.

ATLANTIC ASSETS TRUST—Results for the year to June 30, 1980, announced July 16. Bank balances £161,000 (£243,000), net current assets £474,000 (£1.29m). Chairman confident about the future performance of the company. Meeting, Caledonian Hotel, Edinburgh, November 20, 12.15 pm.

TWINLOCK (office equipment)—Sales for 26 weeks to August 29, 1980, £14.96m (£14.27m); pre-tax loss £339,000 (£241,000) after interest £757,000 (£716,000). After tax £222,000 (£111,000) and minorities, attributable loss £134,000 (£147,000). Numbers employed were reduced by 10 per cent; the level of capital employed was reduced and stocks were cut back by £900,000 in the period. Since start of second half, Shannon Corner, principal investment property, was sold for £1.9m. This produced £350,000 surplus over book value and proceeds used to reduce overall borrowings. Company's shares are traded by M. J. H. Nightingale and Company.

BEN BAILEY CONSTRUCTION—Results for year ended June 30, 1980, reported September 25. Shareholders' funds £1.64m (£1.48m); mortgage loans £276,428 (£322,652): bank advances £443,112 (£383,484). Chairman says company may receive a check in the steady growth of profitability of the past few years. Meeting, Doncaster, December 9, noon.

DENTSPLY (dental and medical supplies and equipment: ultimate holding company is Dentsply International Inc.)—Turnover for first half of 1980, £10.4m (£10.39m). Trading profit £132,000 (£604,000). Exchange gains £102,000 (£128,000). Deduct interest less other income £243,000 (£631,000). After relocation and reorganisation of head office and Welton factory expenses of £409,000 (nil), loss attributable £418,000 (profit £101,000).

JAMES SCOTT ENGINEERING GROUP (subsidiary of William Press and Son)—Turnover for half year to June 30, 1980, £26.8m (£20.3m). Pre-tax profit £1,248,000 (loss £75,000) after tax £366,000 (credit £162,000). Earnings per share 20.3p (1.7p). Dividends have been paid on the 4.55 per cent first preference shares to January 31, 1978, only and on 4.55 per cent second preference shares to January 31, 1975, only. In view of the continuing deficiency on the company's revenue reserves, no further payments have been made.

MUNICIPAL PROPERTIES—Gross income for half year to June 30, 1980, £136,584 (£120,658). Net profit £71,832 (£49,895) after tax of £77,000 (£58,000). Chairman warns that the effect of the current recession may well be reflected in difficulties in maintaining growth of income in future. Residential property sales continue to decline. Only seven properties were sold, compared with ten last time. No new properties have been purchased, but several offers are currently under consideration. It is envisaged that the increase in dividends, in line with past years, will be maintained.

NEW SYLHET HOLDINGS (tea estates)—No dividend for year (7p nil). Turnover for 1979 £228,101 (£311,567). Operating profit £8,302 (£65,727), after depreciation £18,590 (£18,461), exchange loss £11,047 (£8,224), trading loss £22,335 (profit £39,042). After adding investment income £7,044 (£7,341) and deducting interest £3,596 (£1,395), pre-tax loss £18,887 (£44,988). Tax credit £3,520 (£38,331 charge). Loss per £1 share 8.27p (profit 3.2p).

A.D. INTERNATIONAL (subsidiary of Dentsply International Inc.)—Turnover for half year to June 30, 1980, £8.16m (£6.02m). Trading profit £133,000 (£176,000). After exchange gains £42,000 (£67,000). Interest payable, less other income, £262,000 (£188,000) and relocation of head office expenses £240,000 (nil), attributable loss was £327,000 (profit £55,000).

PENGKALEN (tin mining)—Estimated profit before tax and exchange adjustments for year ended September 30, 1980, £71,000 (£331,727). Net interim of 1p and second interim 1.5p already declared.

ENGLISH AND INTERNATIONAL TRUST—Gross income for half year to October 5, 1980 £640,000 (£632,600). Attributable £330,500 (£308,500), after tax £229,400 (£187,600). Interim dividend 1.5p (same). Net asset value 157¾p (127½p as at April 5, 1980).

COMMERCIAL PROPERTIES (privately-owned)—Turnover for six months to June 30, 1980 £894,618 (£797,663), pre-tax profit £631,770 (£519,129) after debenture interest £6,514 (£6,531). Tax £324,617 (£265,739). Extraordinary credits £22,267 (£130,995) of which £21,752 (£190,788) was net surplus on property sales. As previously, no interim dividend is proposed.

Wettern Bros. passes interim

A pre-tax loss of £34,809 for the first half of 1980 is reported by Wettern Brothers. This compares with a deficit of £117,300 last time which included an exceptional loss of £123,300.

Interest charges climbed from £47,000 to £113,800 reflecting the group's investment programme and the high cost of borrowing.

The directors are omitting the interim dividend in view of the current and likely future trend in the group's activities, which cover construction materials, distribution and manufacturing. An intensive overhaul of operations is being undertaken to restore profitability and dividend payments.

Last time an interim of 2.0671p was followed by a final of 3.1457p. Profits for the year totalled £67,000 (£291,000).

Turnover rose from £4.68m to £5.72m in the half year. There was no tax charge.

GUS cautious on profits

We regret that the headline on the GUS story in Saturday's paper, indicating that profits were "well ahead" in the first five months of the current year, was misleading. As the text made clear, in fact profits have only been running near to the corresponding level last year.

FT Share Information

The following securities have been added to the Share Information Service appearing in the Financial Times.

Thomas Nationwide Transport (Section: Industrials). Westfort Petroleum (Oil and Gas).

SPAIN

1980 High	1980 Low		Oct. 31 Price %
252	203	Banco Bilbao	252
282	217	Banco Central	281
221	203	Banco Exterior	221
244	200	Banco Hispano	241
137	117	Banco Ind. Cat.	125
175	141	Banco Madrid	141
282	237	Banco Santander	282
190	132	Banco Urquijo	142
261	208	Banco Vizcaya	261
248	200	Banco Zaragoza	220
123	75	Dragados	108
73	58	Espanola Zinc	60
68	53.2	Fecsa	63.5
40	23.2	Gal. Preciados	31
71.7	58.7	Hidrola	68
68.2	58.7	Iberduero	65.2
123	100.7	Petroleos	113
92	50	Petroliber	85
115	102	Sogefisa	102
65.5	51.5	Telefonica	60.2
70.5	58.2	Union Elect.	68.5

Sir Gerald Glover joins Amal. Estates

Shareholders at the annual meeting of Amalgamated Estates have approved the agreement for Sir Gerald Glover to subscribe for a total of 500,000 shares—2.79 per cent of the capital—at 17.5p. Sir Gerald, who now joins the Board, will provide the company with "further expertise and financial experience," Mr. Charles Rowe, the chairman, said.

After the meeting, Sir Gerald said he expected to be able to bring new projects to the group, remarking "fortunately my contacts are such that I can arrange finance for them."

He added "we will start small, not more than £1m, but as a year or two goes by I hope we will be up to £10m."

A former chairman of City of London Real Property and still chairman of Edger Investments, which he helped build up and which is now owned by Prudential, Sir Gerald added "I do not intend to retire until I am 75. Then I will take up farming."

Property experts suggest his known contacts with British Rail may lead to the company becoming involved in developing some of the surplus railway property.

Meantime, managing director Frank Phillips, who injected his property interests into the then shell company some three years ago, said he is currently negotiating the possible acquisition of more shops in the Kings Road, Chelsea, where the company already has 18 shops.

Sir Gerald is expected to hand over as chairman of Edger to Mr. David McAlpine in January and become the company's president.

MIDLAND BANK STATISTICS

Statistics compiled by Midland Bank show that the amount of 'new money' raised in the UK by the issue of marketable securities in October was £138.1m, more than twice the total for October 1979 but less than the £207.3m raised last month. So far this year £1.006bn has been raised compared with £845.6m in the corresponding period of 1979.

BIDS AND DEALS

Rival bid planned for Tower

A GROUP of Blackpool businessmen are planning a rival bid to take over the Tower Company which changed hands in a £16m deal. And they have threatened to call in the Monopolies Commission if they are refused another chance to make a bid.

This was revealed by Blackpool estate agent, Mr. Owen Oyston, who is acting for the consortium.

He said the recent announcement that Thorn-Emi, which owns the Tower Company, had sold it as part of a deal with Trusthouse Forte and had hit the businessmen "like a bolt out of the blue."

"The sale must not be allowed to go through," said Mr. Oyston. "It is a disgrace that important parts of the Blackpool tourist industry, of vital importance to the local economy, should be bought and sold through financial dealings between London-based conglomerates.

"It is surely in the best interests of Blackpool that important local industries should, where possible remain under the control of local people."

In a statement, Mr. Oyston said: "I wish to stress that we are ready and willing to commence negotiations with Thorn-EMI as a matter of urgency."

The consortium will be meeting in the next few days in the hope that the deal is not yet legally final and that they can reopen negotiations.

METAL BOX

Risdon Corporation, a U.S. subsidiary of Metal Box, has purchased Metalurgica Bassan of Brazil a producer of metal components for cosmetic containers. The acquisition was for an undisclosed amount of cash.

SHARE STAKES

William Press and Son—Colguy Holdings has acquired 1.2m ordinary making total 9.97m (8.339 per cent).

Slough Estates — Kuwait Investment has acquired an additional 157,000 ordinary shares making as at October 13 7,229,500 (5.12 per cent).

Helene of London—Mr. E. M. Passes has sold 500,000 shares, nearly 40 per cent of his holding.

Sunlight Service Group—Throgmorton Trust has acquired a further holding of 170,000 ordinary shares making it the beneficial owner of 720,000 (7.42 per cent).

Glass Glover Group—FS Assurance Trustees are the beneficial holders of 315,000 ordinary (5.6 per cent).

Sunlight Service Group—The non beneficial interest of Mr. J. A. Franks, chairman, has increased by 565,000 shares to 2,719,655 (28.03 per cent).

Murray Clydesdale Investment Trust—Sun Life Assurance Society now holds 140,000 B ordinary shares—7.63 per cent of that class.

Yorkgreen Investments — Energy Finance and General Trust Holdings has a beneficial interest in 345,000 ordinary (5.3 per cent).

Arrow Chemicals — J. K. Farrow, director, has disposed of 100,000 ordinary at 38p (beneficial).

STANDARD LIFE BUYS 6.1% OF ROHAN GROUP

Standard Life Assurance has purchased 350,000 shares—6.1 per cent—of the Rohan Group at 185p per share. Rohan, based in Dublin, trades as an industrial estate developer and building contractor.

Of the total, 270,000 shares were purchased from Industrial Credit Company thereby reducing that company's holding from 15.4 per cent to 10.6 per cent. ICC has notified Rohan that it proposes to retain this holding as a long-term investment.

Standard Life also bought 75,000 shares from Mr. John S. Rohan reducing his holding from 119,693 shares to 44,693 shares. Purchases through the market accounted for the balance of 5,000 shares.

Rohan also announces the sale of 5,000 shares by Mr. Tom McGeogh, a director, who simultaneously exercised an option to purchase a further 10,000 shares, increasing his holding to 26,500 shares.

Ford & Weston acquisition

Ford and Weston Holdings, a private Derby company with a turnover of £25m, has acquired Gibson, Lea & Co., store and shopfitting group of Colwick, Nottingham.

Gibson Lea has a turnover of £3m and employs 120 people. The company provides a design and fitting service for joinery work and for the Storebest shop fitting system from Lubeck in Germany.

The cost of the acquisition is more than £500,000 and it is expected that Gibson Lea will earn profits of about £200,000 in the coming year.

THOS. W. WARD

John Lee of Grantham, a member of the Thos. W. Ward group, has sold its textiles and waste-paper business, situated at Grantham, to Harris & Co. of Bristol. The consideration is payable in cash and is not material to the Thos. W. Ward group.

INTERNATIONAL BONDS

BY FRANCIS GHILES

Adopting the art of doing nothing

THE ART of doing nothing is not easy to practise but in the Eurobond markets the vast majority of institutional and private investors have all adopted this tactic during the past week or ten days.

This at least was the case in the straight dollar sector where a 2¼-points downward adjustment in prices was prompted by the sharp rise in U.S. interest rates during the week, rather than by any generalised pressure to sell.

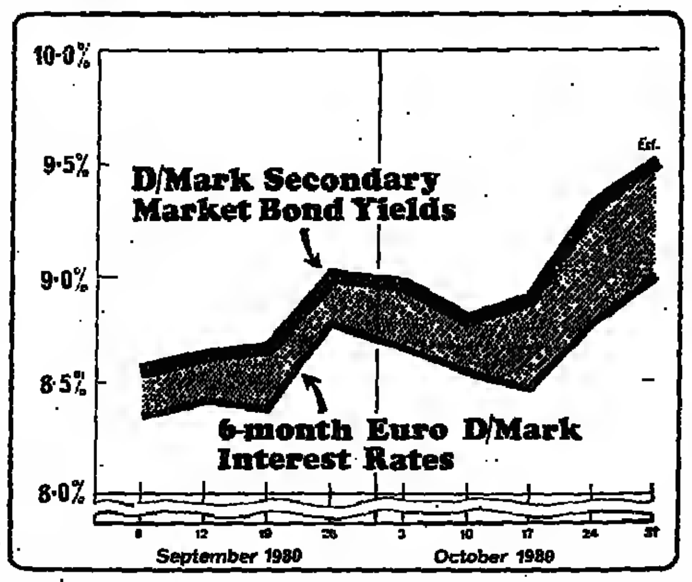
The D-Mark foreign bond sector suffered, as many foreign holders of such paper decided to sell because of the weakness of the currency while one of the two new issues planned for last week was cancelled. A further issue, initially planned by Dresdner Bank for today, is also likely to meet the same fate.

At least three reasons led institutional investors into a state of near inactivity last week: they were prepared to do some swapping between Eurobonds and U.S. Treasury bonds but not to commit any fresh funds to the market.

The inverse yield curve was the first and major deterrent factor. Three- and six-month deposits were yielding more than shorter dated outstanding dollar bonds throughout the week, the difference being sometimes as large as 175 basis points. Last Friday night the six-month Eurodollar rate stood at 15½ per cent—a 1⅛ per cent rise on the week.

The widespread feeling that the U.S. Federal Reserve might tighten rates further in an effort to bring monetary aggregates under control was the second factor at play. The third was the bleak outlook for inflation in the U.S. Add to that the uncertain outlook of the U.S. election and you had a good recipe for sitting tight and doing nothing. These negative factors were however offset by the strong rise in the value of the U.S. dollar.

Convertible bonds fared better than straights, though there were some noted casualties. One such was the partially convertible 9 per cent bond to 1995 for Ocli, which finished Friday at 92 in the middle. Another victim was the 7½ per cent issue to 1995 for Helmrich Payne, which shed about 3 to 97-8 points late in the week, following news that the Canadian Government intends to purchase a controlling stake in some of the subsidiaries of foreign-owned oil companies operating in Canada.



The only new dollar issue launched last week was a $15m convertible for Kay Capital which appeared, particularly towards the end of the week, to be getting a fair reception.

The FRN sector was active, with all recent issues, except the FRN to 1991 for Kleinwort Benson, holding up well. The latter was quoted at 97¾-98¼, the reason for its relative unpopularity being the very tight terms.

The Deutsche Mark foreign bond sector was in a miserable state all week and there are few signs of an early improvement. The weakness of the currency is such that while selling pressure from abroad proceeds unabated, dealers were unable to find buyers, even at lower levels.

The only issue launched last week, the 8¾ per cent private placement for Michelin launched on Monday, was standing at a discount of 2½ points from its indicated price of 99 on Friday.

Meanwhile, the coupon on DM 150m bond for Venezuela to 1990 was increased by ¼ per cent to 9¾ per cent and the issue priced at 99. Even then it was quoted at 96½-97 by Westdeutsche Landsbank on Friday.

Swiss franc bonds had a quiet week, slipping about ½ of a point over five trading days. Seven new issues were launched, including a SwFr 100m public issue for Philip Morris which offers the lowest coupon in this sector in two months, 5½ per cent.

Figures compiled by Morgan Guaranty show that a total of $20.6bn worth of Eurobonds were launched during the first 10 months of this year, a 24 per cent increase over the comparable period last year. But while the volume of dollar denominated bonds increased by nearly 31 per cent and now account for 68.4 per cent of the new issues, D-Mark bond volume slipped by 3.8 per cent to account for only 16 per cent.

CURRENT INTERNATIONAL BOND ISSUES

Borrowers	Amount m	Maturity	Av. life years	Coupon %	Price	Lead manager	Offer yield %
U.S. DOLLARS							
††Telefonica Nac. Espana	50	1990	10	6⊕	100	BNP, Dillon Read	6.060⊕
‡§OCLI Intl. Fin. NV	15	1995	15	9	100	Orion, Bateman Eichler	9.203
‡†Kleinwort Benson Fin.BV.	50	1991	9	5¾⊕	100	Kleinwort Benson	5.918⊕
‡§Toyo Menka Kaisha	20	1996	15	7¾	100	Nikko Secs. (Europe)	7.900
§Tokyu Corp.	70	1995	15	7¾	100	Nomura Europe	7.900
All Nippon Airlines	40	1990	8	8.8	100	Nomura Europe	8.994
†BBL NV	100	1986	6	5⊕	100	CSFB	5.063⊕
§Kay Capital NV	15	1995	15	8¾–9¼	100	Bear Stearns, NM Rothschild, Rothschild AG	*
D-MARKS							
‡ESCOM (gteed S.A.)	100	1987	7	9¼	99½	Dresdner Bank	9.351
‡Indl. Bank of Finland	50	1990	6½	8½	98½	BHF Bank	8.615
‡Venezuela	150	1990	8	9¾	99	WestLB	9.912
**Michelin Fin. BV	200	1987	7	8¾	99	Bayerische Vereinsbank	8.948
FRENCH FRANCS							
‡Westland-Utrecht	100	1985	5	14	100	CCF	14.000
SWISS FRANCS							
‡Oesterreichische Kbk.	100	1990	—	6⅛	100	Wirtschafts-und Prvtbk.	6.125
‡**Swedish Export Credit Corp.	50	1983	—	6	100	SBC	6.000
‡Electric Power Dev. Co.	65	1990	—	5¾	100	UBS	5.750
**§Kobori Yuken	10	1985	—	5¼	100	Credit Suisse	5.250
**Kobori Yuken	20	1985	—	6	100	Credit Suisse	6.000
‡**ESCOM (gteed S.A.)	50	1984	—	6½	100	Credit Suisse	6.500
Philip Morris Intnl. NY	100	1990	—	5½	100	SBC	5.500
STERLING							
EIB	20	1991	8½	13	99½	Kleinwort Benson	13.092
GUILDERS							
‡**Nationale Nederlande	60	1987	5½	10	99¾	ABN	10.051
**Nederlandse Gasunie	75	1987	5½	10¼	100	AmRo Bank	10.250
UNITS OF ACCOUNT							
‡Elsam	20	1987	7	10	99	Kredietbank Intnl. Gp.	10.207

* Not yet priced. ‡ Final terms. ** Placement. † Floating rate note. ⊕ Minimum. § Convertible. †† Registered with U.S. Securities and Exchange Commission. ¶ Purchase Fund.
Note: Yields are calculated on AIBD basis.

CREDITS

BY PETER MONTAGNON

Credit National's cross-Channel bridge

CREDIT NATIONAL of France is raising a £75m credit from a group of banks led by Hambros. The object is to provide bridging finance against the eventual issue of a sterling denominated Eurobond or "bulldog" loan on the domestic market.

This unusual approach has been taken because the borrower as well as the French Treasury apparently feel that sterling has appreciated to a point where it is attractive to borrow but interest rates are still too high to enter the fixed rate market.

By raising the bridging finance now, Credit National will be able to convert the proceeds into French francs at a favourable rate of exchange.

If, as the borrower expects, sterling falls on the exchange markets once interest rates in London turn lower, the borrowing would not only be cheaper to repay but it would also be possible to refinance in sterling at a lower fixed rate of interest than is at present obtainable.

Still undecided is the question of whether the fixed rate borrowing will be in the Euromarket or in domestic sterling, or whether it would be in a single issue or two separate ones.

The syndicated credit has a life of five years, which seems rather long for bridging finance, but it was arranged in this way to ensure exemption from French withholding tax. The credit carries a margin over Libor of ¼ per cent.

Credit National has told the banks participating that it hopes to undertake the refinancing within a year.

Meanwhile, provisional Morgan Guaranty figures for October once again show that the pace of borrowing by non-oil developing countries has slowed substantially. During the month they raised only $1.8bn compared with $3.7bn in October last year. This brought the 10-month total to $17.7bn compared with $30.4bn in the same period of 1979.

The figures come amid renewed concern about the ability of these countries to finance their balance of payments deficits now that oil prices are again moving higher.

Overall activity in the syndicated credit market during the first 10 months was well down on last year, with the total raised falling to $57.4bn from $68.8bn.

One developing country which is moving slowly towards the raising of new finance is India, which has not till now been a significant borrower on the Euromarkets. It is expected to raise some $700m to help finance an aluminium complex in Orissa state.

The borrowing is being co-ordinated by BNP with Bank of America, Societe Generale and State Bank of India also acting as lead managers. Terms are not yet set, but since an additional amount of French export finance is also involved and since Indian borrowings do have a rarity value in the market, the terms are expected to be fairly fine.

Elsewhere, Yugoslavia had still by the end of the week not reached agreement with leading international banks on the conditions for its forthcoming Eurocredit, expected to be about $300m. Talks between the National Bank of Yugoslavia and the banks are continuing this week amid apparently continuing reluctance of Yugoslavia to accept a margin as high as 1⅞ per cent.

A similar situation prevails in respect of planned bilateral borrowings by Yugoslavia in both Germany and France, where amounts and conditions are still both open. Bankers now view the three sets of discussions, which were originally held separately, as embodying a certain degree of interdependence.

Also still to be decided are conditions for Brazil's borrowing for Itaipu Binacional on which talks with Citibank continue.

As a further example of the present fashion for U.S. prime rate-based deals, Chile has adopted such a pricing option in its latest borrowing for the Banco do Chile.

This is a $100m seven-year credit being arranged through Banco di Roma, Bank of Tokyo, Marine Midland, Midland Bank and Morgan Guaranty. Lenders can choose between a flat ⅞ per cent margin over Libor or a ⅞ per cent margin over prime which is reduced after four years to ⅝ per cent.

In this case the prime-based element is couched in particularly generous terms to attract U.S. regional banks.

Among other deals, Pakistan is raising $100m for one year with a margin of 1⅞ per cent over Libor through Gulf International Bank and Morgan Guaranty. This is a commodity import financing facility with a spread slightly lower than the 1⅞ per cent on the country's very successful $200m one-year financing arranged in August.

U.S. BONDS

BY DAVID LASCELLES

Awaiting a discount rate rise

THE SHARP rise in interest rates last week and the continued growth of U.S. money supply has made an increase in the U.S. discount rate from its 11 per cent level a near certainty. The only question is when will the Federal Reserve move, and by how much?

Given the turmoil of Wall Street and the hubbub over the election, this is not an easy question to answer.

The discount rate is now so far below the market (2 to 3 per cent) that an immediate increase seems called for. But the Fed may prefer to wait at least until the end of this week to get the election out of the way, and allow the Treasury to proceed with its $8bn quarterly re-funding, due in three parts, tomorrow and on Wednesday and Thursday.

By Friday it will also have a new set of money supply figures to help it decide whether the net gain of the last three weeks will last.

As for the size of the increase, the market has already discounted 1 per cent, and there are fears that the Fed may therefore be forced to go for 2 per cent to show that it means business. If it does, short-term rates are bound to go higher, although long rates may stabilise in expectation of some improvement further up.

In opting for 2 per cent, the Fed may, however, feel compelled to lend at least half an ear to its colleagues at the Bundesbank, the West German central bank, who fear that another rise in U.S. rates will only depress the Deutsche-Mark still further.

In the market itself, the Fed has steadily been firming up short-term rates to the 13½ per cent mark, an increase of about 2 per cent since early October, in line with the decision it took at its September policy-making meeting to get a tighter grip on the money supply.

However, although the atmosphere of Wall Street is tense, there is still a feeling that the Fed will meet its money supply targets for 1980. M1-A, the basic measure, is comfortably within the growth range. M1-B, the broader measure, is above it but is generally expected to level off in the weeks ahead.

U.S. INTEREST RATES (%)

	Week to Oct. 31	Week to Oct. 24
Fed. Funds wkly. av.	13.39	12.89
1-month Treas. bills	11.40	11.50
3-month CDs	14.10	13.10
30-year Treas. bonds	12.24	11.63
Lng-trm. AAA Utility	13.88	13.13
Lng-trm. AA Indus.	13.38	12.63

Source: Salomon Bros. estimates.

FT INTERNATIONAL BOND SERVICE

U.S. DOLLAR STRAIGHTS	Issued	Bid	Offer	Change on day	Change on week	Yield
CECA 11½ 88	100	92	92¾	−0¼	−2¾	13.14
Citicorp O/S Fin. 10 86	300	86¼	86¾	−0¼	−2¾	13.56
Citicorp O/S Fin 12 87	200	82¾	93	0	−1¼	13.67
Con. Illinois O/S 9¾ 88	150	84¼	84⅞	+0⅛	−2¾	13.80
Denmark 11¾ 90	100	90¾	91¼	−0¼	−2	13.44
Dome Petroleum 13¼ 92	50	96	96½	0	−3½	14.14
EEC 11 85 (May)	75	85⅞	86⅜	−0¼	−2¾	13.18
EEC 11 85 (Aug.)	70	85	85½	−0¼	−2⅞	13.31
EIB 12⅜ 90	100	99½	100	−0⅛	−2¾	13.76
Eksportfinans 9½ 87	75	84¼	84⅞	0	−2	13.05
Elec. de France 10 88	125	85¾	86¼	−0¼	−2½	12.96
Export Dv. Cpn. 12¾ 87	100	97¾	98¾	0	−2	13.18
Export Dv. Cpn. 9½ 86	150	85½	88	0	−2¾	13.45
Federal Dev. Bk. 12¾ 85	75	96¼	96¾	+0⅛	−2¾	13.27
Fin. Exp. Credit 10½ 85	50	89⅞	90⅜	+0⅛	−1⅞	13.44
Finland Rep. of 9½ 86	100	84⅞	85⅜	+0⅛	−1¾	13.53
Ford O/S Fin. 12⅜ 85	250	94¼	95⅛	−0¼	−3¾	14.17
GMAC O/S Fin. 13¾ 85	100	99½	100	0	−1¾	13.39
GMAC O/S Fin. 12 87	100	92⅜	92⅞	0	−2½	13.70
Gen. Mtrs. O/S 11¾ 87	100	92⅜	92⅞	0	−1⅞	13.44
Goodyear O/S 12½ 21	75	84½	95	−0⅛	−3¾	13.71
Hudson's Bay 11¼ 90	75	89¼	89⅞	+0⅛	−2¾	13.45
IBM Canada 10½ 85	50	92¾	93¼	0	−1⅛	12.57
Int. Harvester 12¾ 85	115	96½	97	0	−1¾	13.68
J. C. Penney Int 12⅞ 88	100	95¾	96⅛	+0⅛	0	13.57
McGraw 13½ 85	75	97⅞	98⅜	+0⅛	−1⅞	14.02
NorWest Ind. 13⅝ 87	50	97¼	97⅞	+0⅛	−1¼	14.19
Nova Scotia 10¾ 90	50	85¾	86¼	+0¼	−2¾	13.41
OKB 10 85	50	89⅞	89⅜	−0⅛	−2	13.09
Pemex 11½ 88	100	88	88½	−0⅛	−3¾	14.06
Quebec Hydro 11½ 92	100	87¾	88¼	−0¼	−1⅛	13.60
Rosteel O/S 11½ 88	100	84	84½	0	−2¾	15.06
Royleose 11¼ 85	50	92¾	93¼	+0¼	−2¾	13.28
SNCF 12¾ 85	50	97½	99	−0¼	−2¾	13.00
Sweden 12¾ 85	150	96¼	97	+0⅛	−1⅞	13.30
Swed. Ex. Cred. 12¾ 85	40	96⅞	97⅜	+0⅛	−1⅞	13.33
Swed. Ex. Cred. 12 83	50	96	96½	−0¼	−1⅛	13.62
Transamerica 12¾ 83	50	96⅛	96⅝	0	−1⅞	13.94
UEB Overseas 13⅞ 88	50	†92¾	93¾	+0¼	−0⅞	15.06
Unilever NV 9¾ 90	100	81¼	81¾	−0¼	−2⅜	13.22
World Bank 9¾ 85	200	88	88½	0	−2⅝	13.27
World Bank 10¾ 87	300	87⅛	87⅝	+0¼	−2⅜	13.19

Average price changes. On day 0 on week −2½

DEUTSCHE MARK STRAIGHTS	Issued	Bid	Offer	Change on day	Change on week	Yield
Australia 8¼ 90	250	95¾	96⅜	−0⅛	−1¾	8.76
Austria Rep. of 8¾ 92	150	94¾	96½	−0¼	−1⅞	9.95
BFCE 7¾ 87	100	92⅞	93⅜	−0⅛	−1⅜	9.21
BFCE 8¾ 95	100	93⅞	94⅛	+0⅛	−0⅛	8.84
CECA 7⅞ 92	150	92	92½	−1¼	−1⅞	8.96
Cii-Honeywell 8⅞ 90	125	96¾	96¾	0	+0¼	8.92
Denmark 7⅞ 86	100	93¼	93⅞	−0⅛	−2	9.49
Denmark 8⅞ 92	100	95¼	95⅞	−0¼	−1¼	8.89
EEC 7⅞ 94	225	90⅞	91⅜	−1	−2½	9.02
Finland, Rep. of 8 86	150	94⅛	95⅛	0	−0¼	9.04
Iberduero SA 9 90	100	97¾	97⅞	−0¼	−1⅜	9.39
Japan Dev. Bk. 7¾ 87	100	92¾	93½	−0⅛	−1⅜	9.03
Kobe, City of 8 90	100	93½	94⅛	−1⅛	−3⅛	8.96
Mt. Bk. Denmark 8⅞ 90	150	95½	96⅛	+0⅛	−0⅛	9.15
Norway 7½ 85	250	94⅛	94⅞	0	−1⅛	9.12
Nuclebras 9¾ 88	100	94⅞	95⅜	−0⅛	0	10.68
OKB 8½ 92	150	94⅛	95⅜	−0¼	−1½	8.95
Oslo, City of 8¾ 90	80	99¾	99¾	−0¼	−0¾	8.82
Sweden 9½ 87	200	101⅜	102⅛	0	−1⅜	9.30
World Bank 8 90	700	92	92½	−1⅛	−3	9.23
World Bank 7⅞ 90	250	81⅝	92⅜	0	−1½	9.20
World Bank 10 86	150	103¾	104⅜	+0⅛	−0⅛	9.02
World Bank 10 90	200	106¾	107½	−0⅛	−1⅞	8.84

Average price changes.. On day −0½ on week −1¼

SWISS FRANC STRAIGHTS	Issued	Bid	Offer	Change on day	Change on week	Yield
Austria Rep. of 5⅞ 90	100	†99¾	99½	+0⅛	−0⅛	5.46
Bayer Int. Fin. 5¾ 92	100	†99	99½	−0⅛	−1¼	5.35
Bergen, City of 6 90	80	†101¼	101¾	−0⅞	−1⅛	5.80
BMW Overseas 4¾ 91	100	†88½	89¼	−0⅛	−1	5.67
Buhrm'n-Tetterode 7 90	40	†105¾	106	+0¼	0	6.16
Copenhagen Tele. 5¾ 90	80	†95¾	96	+0¼	−0½	6.32
Denmark 5¾ 90	80	*†97½	98	+0¼	−0⅛	6.06
EIB 4¾ 94	100	†89	89½	+4½	+4¼	5.50
Elec. de France 5¼ 90	100	†98¾	99	+0¼	−0½	5.40
Eurofima 5¾ 97	80	†102⅛	102⅜	0	−0¼	5.47
F. G. H. Hypo Bk. 6 90	50	*†102½	103	−0⅛	−0⅞	5.60
Finland Rep. of 5¾ 90	80	†95	95¼	+0¼	−0⅛	6.30
GZB 4¾ 89	100	†87½	87⅞	−0½	−1½	6.08
Int.-Amer. Dev. 7 90	80	*104¾	105	+0½	−0½	6.30
Japan Dev. Bk. 5¾ 90	100	†101	101¼	+0¼	−1	5.60
Jutland Tele. 5½ 90	50	*†98½	87	+0½	−0⅛	5.96
Mt. Blanc Tunnel 5½ 90	60	†99¾	100	+0¼	+0¼	5.51
Nawag 5¾ 90	80	*100¾	100½	0	−0½	5.69
Nippon Tel. & T. 4¾ 89	100	†93	93¼	−0⅛	+0¼	5.23
Norges Komm. 4⅞ 91	100	†89	89¼	+0½	+1	5.74
OKB 4¾ 91	100	†88	88¼	+0¼	+1⅛	5.88
OKB 6 90	100	†101⅛	101⅜	−0¼	0	5.77
Oslo, City of 4¾ 91	100	*87¾	88	+0¼	−0⅛	5.91
Oslo, City of 5⅞ 90	80	†100⅛	100½	+0¼	+0⅛	5.82
Philips Lamps 5⅞ 92	100	†98¾	98½	−0½	−0⅛	5.44
Sekisui Pre. Hms. 6 90	80	†101⅛	101⅜	−0⅛	−0⅛	5.77
Shikoku El. Pwr 4¾ 89	100	†92½	92¾	−0⅛	+0⅛	5.84
Trade Dev. Fin 6¾ 90	50	†97	87½	0	−1½	6.53
Voest-Alpine 5¾ 90	80	†98¼	98½	−0¼	−4	5.97
World Bank 4¾ 89	150	†89	89¼	0	+0¼	5.98

Average price changes .. On day +0½ on week −0⅛

YEN STRAIGHTS	Issued	Bid	Offer	Change on day	Change on week	Yield
Australia 5.6 83	30	90⅞	92¼	+0⅛	−0⅛	8.99
Australia 6½ 88	20	87½	88¼	+0⅛	+0⅛	8.75
EIB 7¾ 89	12	95¼	96⅛	+0⅛	−0⅛	8.44
Finland 5.6 83	10	90½	91⅛	0	−0⅛	9.24
Finland 6.8 88	10	86½	87¼	+0⅛	−0⅛	9.27
Finland, Rep. of 8⅛ 87	15	95¾	96⅛	+0¼	0	9.14

Average price changes... On day +0⅛ on week −0⅛

OTHER STRAIGHTS	Issued	Bid	Offer	Change on day	Change on week	Yield
Bell Canada 10¼ 86 C$	60	92⅞	93⅜	−0⅛	−1⅛	12.45
CIBC 13¼ 85 C$	50	†98	98¾	0	−0⅛	13.94
CIBC 11¼ 85 C$	60	†92¾	93⅛	−0¼	−1⅛	13.52
Federal Dev. 11½ 90 C$	60	†87½	88⅛	−0⅞	−2⅛	13.81
Fst. Can. Inv. 10 84 C$	50	†89¾	90	−0⅛	−1	13.84
R. Bk. Canada 10 86 C$	40	92½	92¾	−0½	0	11.92
Tordom Cpn. 13½ 85 C$	30	†98¾	99	0	−0⅛	13.86
M. Bk. Dnmk. 9 91 EUA	25	94	95¼	0	+0⅛	9.81
SOFTE 8¾ 89 EUA	40	89¼	90½	0	+0¼	10.07
U. Bk. Nrwy 9⅛ 90 EUA	18	98¾	99¾	0	−0⅛	8.67
Algemene Bk. 10¼ 87 Fl	400	99½	100	−0⅞	−0¼	10.28
Bk. Mees & H. 10 85 Fl	75	99¾	100¼	−0⅛	−0½	9.98
F. G. Hypo 9¾ 87 Fl	60	96⅜	96⅞	+0¼	−0½	10.45
Heineken NV 10 87 Fl	75	96⅜	97¼	−0⅛	−1⅛	10.65
Nat. Inv. Bk. 10 87 Fl	75	97¼	98⅛	−0⅜	−1⅛	10.43
Nat. Neder 9½ 87 FL	60	96¾	96¼	−0⅛	−0⅜	10.33
Neder Mdn Bk 10 85 Fl	75	101⅛	101⅜	−0⅛	−1	9.62
Aero Paris 13¼ 87 FFr	150	96¾	97¼	+0¼	+0¼	13.74
CECA 14¾ 86 FFr	150	*102	103	+0¼	0	13.57
Finland 11 84 FFr	80	*91¾	92¼	0	+0½	13.84
Finland 11½ 88 FFr	70	*86½	87½	0	0	14.16
Gaz de France 11 84 FFr	150	†93½	94½	+0⅛	+0⅞	13.02
IBM France 11⅞ 84 FFr	120	*93⅞	94⅞	+0⅛	+0¼	13.70
Renault 9¾ 85 FFr	100	†85	86	0	+0⅛	14.15
Solvay et Cie 9¾ 87 FFr	125	80¾	81¼	+0¼	−0¼	14.35
Utd. Mx. Sts. 14 85 FFr	150	†99	100	+0½	+0¾	14.09
Beneficial Fin. 14¼ 90 £	20	99⅜	99⅞	−0¼	−0⅛	14.33
BNP 13½ 91 £	15	97¾	98⅜	0	−0¼	13.85
CECA 13½ 88 £	20	97¾	98⅜	−0⅛	−0⅛	13.93
Citicorp O/S 13½ 90 £	50	98¼	98⅝	+0⅛	−0⅛	13.79
Fin. for Ind. 14½ 88 £	20	101	101½	+0¼	+0⅛	14.16
Fin. for Ind. 13¾ 87 £	20	98¾	99¼	−0⅛	−0½	13.97
Gen. Elec. Co. 12½ 89 £	50	95¼	96	+0⅛	−0⅛	13.35
Peugeot SA 14 90 £	23	99¼	99¾	0	+0⅛	14.09
Rothschild 14¼ 90 £	12	99⅝	100⅛	+0½	+0¼	14.22
Swed. Ex. Cr. 15¼ 85 £	20	103¼	103⅞	−0⅛	−0⅛	14.06
Bandbias 8¼ 90 KD	7	†90¾	91¾	0	0	8.76
CCCE 8¼ 91 KD	10	†86¾	87½	+0¼	+0¼	10.22
Sonatrach 8½ 90 KD	12	†91⅛	91⅞	0	0	9.89
Akzo 9¼ 87 LuxFr	500	92¼	93¼	−0⅞	−0⅛	10.81
Euratom 9¾ 88 LuxFr	500	96⅛	97½	−0⅛	−0⅞	10.43
Eurofima 10¼ 87 LuxFr	500	97½	98½	0	0	10.92
EIB 9¾ 88 LuxFr	600	97½	98½	0	0	10.21
Volvo 9¾ 87 LuxFr	500	94	95	+0⅛	−0¼	10.90

FLOATING RATE NOTES	Spread	Bid	Offer	C.dte	C.cpn	C.yld
Allied Irish Bk. 5¼ 87	0¼	97½	98	2/1	10.44	10.68
Bank of Ireland 5¾ 89	‡0¼	97⅞	98⅛	21/11	11½	11.59
Bank of Tokyo 5¼ 89	‡0¼	87¼	98	25/4	13.94	14.26
Barclays O/S Inv. 5 90	0¼	97½	98	13/12	9½	9.85
Bergen Bk. A/S 6 89	‡0¼	97⅞	98⅜	29/11	12¼	12.48
Bilbao Int. N/V 5¾ 90	0¼	97⅞	98¼	29/11	10.06	10.28
Citicorp O/S F 83	§‡0	98¾	99¼	23/11	11.44	11.57
Citicorp O/S F. 84	‡0	99¾	99¾	30/11	15	15.08
C. Itoh 5¼ 87	0¼	98⅛	98⅝	18/3	12⅞	13.09
Co-operative Bk. 6 85	0¼	98	98½	15/11	11.44	11.64
Creditanstalt 5½ 91	§‡0¼	97¾	98¼	14/12	12.06	12.32
CNT 5¼ 86	§0⅜	98¾	99⅛	18/6	13¼	13.40
GZB 5½ 89	‡0¼	97⅞	98⅜	1/11	9.81	10.00
Jugobanka 8 89	0⅞	91¼	93⅞	23/11	11⅛	12.60
Ind. Bank Japan 5¼ 87	0¼	98¼	98⅞	15/4	13.31	13.50
Ind. Bank Japan 5¼ 88	0¼	97¾	98¼	9/4	13⅞	13.39
Lloyds Eurofin 8 90 £	0¼	96	96½	3/1	15¼	18.38
LTCB Japan 5¼ 86	0¼	98¾	98⅞	13/12	9¼	9.76
Mfrs. Han. O/S 5¼ 94	‡0¼	97½	98	30/11	12¼	12.40
Midland Intl. Fin. 5 86	0¼	98	98½	20/12	9½	9.67
Midland Intl. Fin. 5¼ 92	0¼	97¼	98	5/12	10⅞	11.13
Nacional Fin. 6¾ 86	0¼	97½	98	25/1	9.69	8.91
Nat. West 5¾ 94	‡0⅛	97¼	97⅞	14/4	13¼	13.57
Nat West 5¼ 92	0¼	91¾	98¼	23/4	13.69	13.97
Nippon Credit 6½ 86	0½	97¼	97⅞	12/11	8.56	8.82
Nippon Credit 5¾ 87	‡0¼	99	99½	6/11	10⅞	10.96
Royal Bk. Scot 5¼ 94	§‡0¼	98½	99	11/1	13¼	13.42
Soc. C. de Bque. 6½ 87	0¼	98	98½	3/4	14	14.55
Standard Chart. 5¼ 90	0¼	98	98½	6/3	12.06	12.28
Svenska Hndlsbk. 5 87	0¼	97⅞	98⅜	15/1	10	10.19
Bq. Ext. d'Alg. 6¼ 89 SF	0½	89	90	18/12	6¼	6.84

Average price changes... On day 0 on week −0⅛

CONVERTIBLE BONDS	Cnv. date	Cnv. price	Bid	Offer	Chg. day	Prem
Ajinomoto 7¼ 95	2/80	515.6	127½	128¾	+2¼	2.18
Blocker Energy 8¼ 95	1/81	21.87	110¼	111¼	−7¼	3.32
Credit Suisse 4¼ 93	10/79	1278	115	118½	−0¼	−3.62
OBKK 1½ 90	4/80	324	104	105	−3	15.27
Digicon Fin. 8½ 95	10/81	29.5	99½	100½	−0⅛	5.81
Dynolectron 9½ 95	8/80	12.22	125½	127	−4⅛	0.31
Ensearch Fin. 9½ 94	7/80	30.25	149⅛	150¾	+0½	−3.52
Hanson O/S Fin. 9½ 95	1/81	1.92	98¼	99	−0⅛	−1.92
Huffy Int. Fin. 8½ 95	12/80	23.25	93¼	94¼	+0¼	41.00
INA Overseas 8½ 2000	4/81	42	99½	100½	−0½	10.15
Inchcape Ltd. 8 95	2/81	4.55	106⅞	107⅞	−0¼	−3.73
JACCS 1½ 95	11/80	585	103½	104½	−0⅛	7.03
Marion Int. Fin 9 95	12/80	23.25	101	102	−1¼	3.73
Matsushita Elec. 1½ 95	11/80	649	107¼	103¼	+1⅞	9.79
MEPC 8¼ 96	2/81	2.47	103½	104¼	0	4.28
Nissho Iwai Co. 8 96	10/80	398	100¼	101¼	−0⅞	−0.35
Ricoh 6¾ 95	8/80	604	107½	108½	+0¼	0.68
SBC 6¾ 90	8/80	200	99¼	100¼	+0¼	9.55
Taylor Woodrow 8¼ 90	1/81	4.94	97	98	−0¼	3.24
Tricorp. 8½ 95	12/80	31.25	100⅝	101⅝	−0¼	22.72
Union Bk. Switz. 5 89	2/80	121.4	95½	97	+0½	−4.17
Fujitsu 5 84 DM	7/79	475	131¾	132¼	+3⅞	10.91
Sharp Corp. 2½ 88 DM	9/80	595	131¼	132¾	+1⅛	−1.29
Uny Co. 6½ 85 DM	11/79	1071	98¼	99¼	+0⅛	14.06

BONDTRADE INDEX AND YIELD

	Medium term		Long term	
Oct. 31 ..	na	na	na	na
Oct. 24 ..	na	na	na	na
High '80...	93.58	(18/6)	89.19	(2/1)
Low '80...	86.32	(2/4)	71.54	(29/2)

EUROBOND TURNOVER (nominal value in $m)

	Cedel	Euroclear
U.S. $ bonds		
Last week	1,958.1	4,174.0
Previous week	2,210.8	2,424.9
Other bonds		
Last week	299.1	426.2
Previous week	622.5	528.8

* No information available—previous day's price.

† Only one market maker supplied a price.

STRAIGHT BONDS: The yield is the yield to redemption of the mid-price; the amount issued is in millions of currency units except for Yen bonds where it is in billions. Change on week = Change over price a week earlier.

FLOATING RATE NOTES: Denominated in dollars unless otherwise indicated. Coupon shown is minimum. C.dte = Date next coupon becomes effective. Spread = Margin above six-month offered rate (‡ three-month; § above mean rate) for U.S. dollars. C.cpn = The current coupon. C.yld = The current yield.

CONVERTIBLE BONDS: Denominated in dollars unless otherwise indicated. Chg. day = Change on day. Cnv. date = First date for conversion into shares. Cnv. price = Nominal amount of bond per share expressed in currency of share at conversion rate fixed at issue. Prem = Percentage premium of the current effective price of acquiring shares via the bond over the most recent price of the shares.

The list shows the 200 latest international bonds for which an adequate secondary market exists. The prices over the past week were supplied by: Arab Company for Trading Securities SAK; Kredietbank NV; Credit Commercial de France; Credit Lyonnais; Commerzbank AG; Deutsche Bank AG; Westdeutsche Landesbank Girozentrale; Banque Generale du Luxembourg SA; Banque Internationale Luxembourg; Kredietbank Luxembourg; Algemene Bank Nederland NV; Pierson, Heldring and Pierson; Credit Suisse/Swiss Credit Bank; Union Bank of Switzerland; Akroyd and Smithers; Bankers Trust International; Bondtrade; Credit Commercial de France (Secs.) London; Citicorp International Bank; Daiwa Europe NV; Deltec Trading Company; Dillon, Read Overseas Corporation; EBC; First Chicago; Goldman Sachs International Corporation; Hambros Bank; IBJ International; Kidder Peabody International; Merrill Lynch International; Morgan Stanley International; Orion Bank; Salomon Brothers International; Samuel Montagu and Co.; Scandinavian Bank; Societe Generale Strauss Turnbull; Sumitomo Finance International; S. G. Warburg and Co.; Wood Gundy.

Closing prices on October 31

WORLD STOCK MARKETS

NEW YORK

CANADA

HOLLAND

HONG KONG

JAPAN

ITALY

NORWAY

SWEDEN

SWITZERLAND

FRANCE

AUSTRALIA

SOUTH AFRICA

BRAZIL

1980 High	1980 Low		Price
2.67	1.00	Pirelli OP	1.47
4.00	2.58	Souza Cruz	2.28
7.36	4.80	Unip PE	5.70
11.90	2.95	Vale Rio Doce	8.00

TEL AVIV

Company	Prices Nov. 2 1980	Change on the week
Banking, Insurance and Finance		
Bank Leumi le Israel	962	+ 33.0
IDB Bankholding	1,075	+ 17.0
Bank Hapoalim Br.	921	+ 70.0
Union Bank Israel Br.	950	+ 73.0
Utd. Mizrahi Bank	785	+ 13.0
Hasneh Insurance Br.	590	− 18.0
Gen. Mort. Bank Br.	716	+ 8.0
"Tefahot" Israel Mort. Bank Br.	775	+ 19.0
Land Development		
Africa Israel Inv. IE10	1,330	—
Israel Land Dev. Br.	609	—
Property and Building	730	+ 23.0
Public Utility		
Israel Electric Corp.	502	+ 35.0
Investment Companies		
Bank Leumi Invest.	665	− 29.0
"Clal" Israel Invest.	881	+ 51.0
Discount Invest.	754	+ 94.0
Commercial and Industrial		
Alliance Tire & Rubber	3,000	−245.0
Elco Br.	399	− 28.0
Argaman Textile Br.	273	+ 8.0
"Ara" Textile "B"	261	—
Amer. Israel Ppr. Mills	1,260	−115.6
Assis	684	+ 54.0
Elite	881	− 35.6
Teva Reg.	1,110	− 77.0
Fuel and Oil		
Delek	489	+ 18.0

Source: Bank Leumi le Israel BM. Tel Aviv.

NOTES:—Prices on this page are as quoted on the individual exchanges and are last traded prices. § Dealings suspended. xd Ex dividend. xc Ex scrip issue. xr Ex rights. xa Ex all.

AUSTRIA

BELGIUM/LUXEMBOURG

GERMANY

DENMARK

SINGAPORE

Indices

NEW YORK —DOW JONES

	Oct. 31	Oct. 30	Oct. 29	Oct. 28	Oct. 27	Oct. 24	1980 High	1980 Low	Since Compil'tn High	Since Compil'tn Low
Industrials	924.49	917.75	929.18	932.59	931.74	945.60	974.57 (22/9)	759.13 (21/4)	1051.70 (11/73)	41.22 (8/7/32)
H'me B'nds	65.85	65.95	66.08	66.09	66.11	66.51	78.81 (15/1)	65.87 (28/1)	—	—
Transport.	361.51	360.97	365.74	363.24	366.14	375.47	381.08 (22/10)	233.08 (27/3)	381.08 (22/10/80)	12.23 (8/7/32)
Utilities	110.98	110.15	111.45	111.83	113.91	112.74	115.39 (8/7)	96.04 (27/3)	163.32 (20/4/69)	10.58 (28/4/42)
Trading Vol 000's	48,110	53,060	37,200	40,500	34,430	41,220	—	—	—	—

●Day's high 929.35 low 911.60

	Oct. 24	Oct. 17	Oct. 10	Year ago (approx
Ind. div. yield %	5.71	5.63	5.56	6.15

STANDARD AND POORS

	Oct. 31	Oct. 30	Oct. 29	Oct. 28	Oct. 27	Oct. 24	1980 High	1980 Low	Since Compil'tn High	Since Compil'tn Low
‡Indust'ls	145.15	143.72	145.64	146.80	146.60	147.82	152.84 (13/10)	111.08 (27/3)	152.94 (15/10/80)	3.52 (30/6/32)
§Composite	127.47	126.29	127.91	128.05	127.88	192.05	133.70 (15/10)	98.22 (15.2)	133.70 (15/10/80)	4.40 (1/6/32)

	Oct. 22	Oct. 22	Oct. 15	Year ago (approx
Ind. div. yield %	4.55	4.44	4.97	5.42
Ind. P/E Ratio	8.65	9.15	9.29	7.57
Long Gov. Bond Yield	12.25	11.80	11.41	10.26

N.Y.S.E. ALL COMMON

Oct. 31	Oct. 30	Oct. 29	Oct. 28	1980 High	1980 Low
73.53	72.65	73.80	73.84	77.24 (15/10)	55.36 (22/3)

Rises and Falls

	Oct. 31	Oct. 30	Oct. 29
Issues Traded	1,913	1,908	1,886
Rises	800	365	671
Falls	647	1,155	788
Unchanged	356	372	499
New Highs	—	22	66
New Lows	—	14	11

MONTREAL

	Oct. 31	Oct. 30	Oct. 29	Oct. 28	1980 High	1980 Low
Industrial	369.07	366.94	385.74	395.22	423.80 (29/9)	323.91 (27/3)
Combined	350.16	347.21	362.98	368.52	378.96 (20/10)	286.58 (27/3)
TORONTO Composite	2240.2	2215.0	2301.4	2321.5	2368.5 (20/10)	1702.5 (27/3)

	Oct. 31	Oct. 30	Oct. 29	Oct. 22	1980 High	1980 Low
AUSTRALIA						
Sydney All Ord. (1/1/80)	1225.73	1015.73	1005.52	1005.56	1026.73 (31/10)	760.00 (2/1)
Metal & Minrls. (1/1/80)	6875.49	6876.75	6777.46	6781.25	7026.52 (20/10)	4681.20 (28/3)
AUSTRIA						
Credit Aktien (2/1/62)	66.56	66.88	66.26	66.27	69.40 (7/1)	65.56 (19/6)
BELGIUM						
Belgian SE (31/12/63)	99.51	99.96	90.55	86.28	105.75 (11/2)	85.65 (21/10)
DENMARK						
Copenhagen SE (1/1/73)	97.27	96.69	96.81	96.70	97.27 (31/10)	74.78 (5/3)
FRANCE						
CAC General (29/12/61)	118.2	118.5	117.5	118.5	118.5 (30/10)	97.1 (5/1)
Ind Tendance (29/12/78)	119.4	119.9	118.8	118.0	118.4 (15/8)	96.6 (6/1)
GERMANY						
FAZ-Aktien (31/12/58)	224.74	226.08	226.94	228.71	238.89 (25/2)	212.73 (28/3)
Commerzbank (Dec. 1953)	698.60	709.2	705.1	706.0	748.2 (25/2)	667.0 (27/3)
HOLLAND						
ANP-CBS General (1970)	88.4	88.4	86.9	86.1	89.3 (25/7)	74.9 (27/3)
ANP-CBS Indust. (1970)	64.6	64.1	65.3	64.2	68.2 (11/1)	58.2 (28/3)
HONG KONG						
Hang Seng Bank (31/7/64)	1488.96	1488.50	1461.50	1471.85	1489.80 (31/10)	738.9 (13/3)
ITALY						
Banca Comm. Ital (1972)	189.53	180.11	174.43	172.27	185.85 (31/10)	83.11 (2/1)
JAPAN						
Dow Average (16/5/49)	7150.70	7124.78	7118.68	7088.44	7175.33 (20/10)	6475.93 (27/3)
Tokyo New SE (4/1/68)	493.05	494.69	483.54	491.89	497.98 (20/10)	449.31 (10/3)
NORWAY						
Oslo SE (1/1/72)	123.6	124.24	124.42	123.88	144.70 (14/2)	110.12 (28/10)
SINGAPORE						
Straits Times (1966)	681.5	665.76	661.87	656.21	681.5 (31/10)	429.76 (3/1)
SOUTH AFRICA						
Gold (1958)	—	964.0	934.5	986.3	1029.1 (22/9)	640.5 (2/7)
Industrial (1958)	—	652.5	650.6	649.1	652.5 (30/10)	466.8 (2/1)
SPAIN						
Madrid SE (29/12/79)	108.11	108.23	108.37	108.52	111.17 (19/9)	95.79 (13/6)
SWEDEN						
Jacobson & P. (1/1/58)	387.0	382.55	377.57	374.78	387.9 (31/10)	354.72 (17/1)
SWITZERLAND						
Swiss BankCpn.(31/12/58)	307.8	306.5	304.0	301.8	317.9 (11/2)	279.8 (28/4)
WORLD						
Capital Intl. (1/1/70)	—	158.8	157.5	156.8	161.8 (18/10)	128.5 (27/3)

Base values of all indices are 100 except NYSE All Common—50; Standard and Poors—10; and Toronto—1,000; the last named based on 1975. † Excluding bonds. ‡ 400 industrials. § 400 industrials plus 40 Utilities, 40 Financials and 20 Transports. c Closed. u Unavailable.

NEW YORK ACTIVE STOCKS

Friday	Stocks traded	Closing price	Change on day
S. Juan Royalty	1,238,900	12¼	—
Gulf Oil	557,800	39¾xd	—
S'd Royalty WI	533,100	37	+4⅝
IBM	533,100	66⅝	+1½
Stauffer	483,200	18¾xd	− ¾
Mobil	481,000	74½	+ ⅜
Palmcan WI	446,200	20⅝	+1
Sun Co.	401,000	45½	+ ½
Duke Power	369,200	16⅝	−1
K Mart	339,700	19¾	—

FINANCIAL TIMES SURVEY

Monday November 3 1980

Middle East Oil and Gas

The Iraq-Iran conflict is one the oil producers could do without, because it will inhibit future investment in war-vulnerable industries. Political survival and the need for a sensible pricing strategy are the main priorities, plus a drive to lead the various economies away from their reliance on one resource.

Security the constant worry

By Patrick Cockburn

DURING THE 1970s Middle East oil producers benefited from war and revolution. Prices began to rise with Col. Gadaffy's attacks on the independents in the early years of the decade. The Arab-Israeli war of 1973 led directly to the tremendous growth in the cost of oil consumed in the West and elsewhere. In the mid-1970s the real price of crude dropped until the strikes against the Shah in the oilfields of Khuzestan in late 1978 started a new explosion in export prices.

The immediate benefits to producing States of the Iranian revolution are obvious. Nobody was slow to take advantage of them but with the fall of the Shah the spectre of revolution and war stood on the shores of the Gulf.

For 18 months Iran's attacks on its fellow oil producers remained rhetorical and fears among the industrialised States that Ayatollah Khomeini's triumph in Iran would lead to the Gulf countries falling like so many dominoes seemed to disappear. The Iraqi attack changed all that. What was planned as a limited assault to obtain territorial concessions, increased prestige for Iraq and the punishment of the rulers of Iran turned into a total war.

Nothing was sacrosanct. Oil facilities on both sides have been shelled and bombed. Within a matter of days almost 4m barrels of crude were removed from the world market. The impact of this was not immediately very dramatic. The Iranian revolution had shocked the oil market and some new trauma had been vaguely expected by the oil consumers. Stocks were high and, in any case, there was little the West could do about a war between two protagonists whose only point in common is a deep suspicion of the industrialised world.

It is certainly a conflict the oil producers could have done without. The Gulf States are at the heart of the Organisation of Petroleum Exporting Countries (OPEC) and already at the Vienna Summit it was clear that political antagonisms were taking first place. The elaborate new price structure, with special indices to link the increase in the crude price to inflation and industrial development in the world, clearly made little impact on the Iranians.

Their Oil Minister, Mr. Ali Akbar Moinfar, spent much of the conference belabouring the Iraqis and vetoing any new price system. In Iran itself the Government had already succeeded in April in cutting itself off from major oil markets by raising its price just as the market was softening. This self-inflicted blow caused more damage to the Iranian economy than all of President Carter's sanctions.

The problem for the key oil producers is that their own security is threatened and there is very little they can do about it. Saudi Arabia, Kuwait and the others have small populations and even the most grandiose military projects cannot turn oil wealth into security. They have every reason to fear their enemies and good reasons too to fear their friends.

Distance

The so-called Carter Doctrine enunciated by the U.S. in January that Washington was prepared to use force to secure Gulf oil supplies from outside threats was not greeted with any enthusiasm by Gulf States. They desperately need to keep Great Power rivalries at a distance—they clearly cannot be excluded altogether from an area which provides 60 per cent of OPEC production and a high percentage of Europe's supplies.

Oil prices—indeed economic considerations in general—must take second place to the needs of political survival. Whether this requires producing more oil or less hardly matters. Security is what counts. All the arguments over the past year about the graduated increases for oil over the coming decade appear irrelevant when the chips are down. Libya and Algeria may not feel that way but their production is insufficient to really sway the oil markets.

Saudi Arabia's views are more crucial than ever since the Kingdom now provides 42 per cent of OPEC's total exports. The fear that the war between Iraq and Iran could spread south to the Strait of Hormuz has led the Saudis to seek more American protection. In late September four AWACs surveillance aircraft were put at Saudi Arabia's disposal. A large fleet, mainly of U.S. vessels, waits in the Indian Ocean as a symbol of Western intentions.

Drilling a natural gas production well for BANOCO in Bahrain

The increase in Saudi Arabian production to 10.4m barrels-a-day (b/d) production initially quieted fears in the West that the uncertainty of the political situation would lead to dramatic price increases. Other oil producers such as Kuwait and the United Arab Emirates (UAE) showed some sympathy in the early days of October for the consumer but were not prepared to increase their production dramatically. Qatar's promised contribution for instance, was a tiny 20,000 b/d on top of existing output of 475,000 b/d. In the middle of October the UAE increased fears that there would be some hardening of prices when they raised their oil by $2 a barrel.

Earlier this year the Iranians had already discovered the limits of the market when they surprised purchasers by raising prices by $2 to $35. A consortium of 12 Japanese companies together with BP and Shell thought this too expensive. They pulled out. The Iranians blamed their withdrawal on U.S. pressure but the purchasers maintained that their motives were purely commercial. At the same time as the abortive Iranian demarche the spot market was soft and the depression in the West on top of a mild winter had lifted stocks to a high level.

Against this background it seemed opportune for OPEC to try to develop some general strategy on prices. With the OPEC current account surplus for 1980 estimated to total $120bn no member of the organisation was likely to cut prices purely to increase revenues.

Since the first explosion of oil prices in 1973 total OPEC external assets have increased to $300-350bn of which some $118bn is held by Saudi Arabia. The OPEC summit in Vienna could have adopted the plan pushed by the Saudi Arabian Oil Minister, Sheikh Yamani, to link the increase in the oil price to indices which would take account of the impact of inflation and the development of the consumer countries' economies. The producing States had much to gain economically but the political divisions proved too wide to bridge.

Politics, not economics, will determine the future decisions of OPEC. It is unlikely that Arab States will ever again push for the breakneck development seen after 1973. The limitations on capacity to absorb investment have been demonstrated. The fall of the Shah has shown the consequences of fracturing the social structure in pursuit of swift growth.

Phenomenon

There is a less noticeable phenomenon which may also restrict the growth of the countries of the Gulf in future. The war between Iraq and Iran looks as if it will be prolonged. Once it is finished both sides will move quickly to repair or replace their oil production and export facilities. But it is most unlikely that either side in the war or their immediate neighbours expect to see stability return to the Gulf.

Even with a peace there is always the chance of war breaking out again. This will disincline the combatants from investing billions of money in downstream industries which are vulnerable to air attack and artillery. Bandar Khomeini in Iran has been severely damaged. The Iraqi fertiliser and petrochemical plants at Khor al-Zubair have come under attack. Capital-intensive projects are less attractive in a region where air raids are possible.

It is not surprising that the atmosphere today in the main Middle East oil and gas producers is so different from the heady days after the 1973 price rise. It is true that between the end of 1978 and today the price of Saudi Arabian light crude rose from $12.70 a barrel to $30. But it is likely that the rulers of the Kingdom would have traded all the increased wealth for the political security which money cannot buy. The views of the Algerians and the Libyans hardly count when the main Gulf producers consider their political options.

Already the attitudes of the producing States to oil prices and production, the development of industry, the import of expatriate labour, the distribution of foreign assets, and the future of OPEC have been modified if not utterly changed by the fall of the Shah and the Iraq-Iran war.

CONTENTS

Determined policy to build up industry

OAPEC

JOHN CHRISTIE

THE Organisation of Arab Petroleum Exporting Countries (OAPEC) is regarded by some jaundiced outsiders as a cosy cartel whose Arab members spend much of their time deliberating the timing and scale of the next oil price increase. To others OAPEC might seem merely a regional extension of the Organisation of Petroleum Exporting Countries (OPEC) itself; a nationalistic offshoot from the parent body, a club within a club.

But while OPEC is mainly concerned with the international arrangements and relations of its members, OAPEC is engaged in a surprising range of activities well beyond regard for oil prices and supply and demand problems.

The undoubted influence and power of OAPEC rests, of course, on the oil resources it represents. The 11 members of OAPEC — Algeria, Bahrain, Egypt, Iraq, Kuwait, Libya, Oman, Qatar, Saudi Arabia, Syria, and the United Arab Emirates—between them produced over 9,000m tons of oil in the years 1970 to 1979: more than one-third of the world total consumption of crude oil.

The current war between Iraq and Iran has taken about 4m barrels of oil a day off the market. Yet the remaining OAPEC producers, if they increased their production to full capacity, could easily provide an additional 3m barrels a day. This would more than cover the shortfall caused by the war, since more than 2m barrels a day was going into storage before the fighting broke out.

Whatever the eventual outcome of the Iraq-Iran war the solidarity and unity of OPEC will be severely prejudiced: the two countries are scarcely likely to co-operate amicably together in the OPEC framework.

Differences

No such problems beset OAPEC. There have been disagreements among the Arab members in the 12 years of OAPEC's existence. In 1971 Kuwait raised objections to the admission of Iraq to OAPEC: Dubai opposed the OAPEC decision to build a dry dock in Bahrain: as a result of the Camp David agreements Egypt is estranged from the rest of the Arab world. Nevertheless, OAPEC has managed to absorb and survive internal differences and can, and does, present a united Arab front on the oil issue.

For DAPEC the oil issue is a great deal more than arguments about oil price structure and production levels. In a recent article (in the Third World Quarterly) Dr. Ali Ahmad Attiga, Secretary General of OAPEC, write of " continuous campaign, tantamount to cold war, waged against OPEC by many circles with vested interests in the preservation of the present world economic order."

Dr. Attiga wrote in the context of DPEC generally, but the message is undoubtedly an OAPEC one. At the cora of OAPEC's position is the cbill certainty that the Arab oil states essentially have one commodity for international trade, the ultimately finite and constantly dwindling oil resource.

OAPEC's considered answer to this inescapable circumstance is a determined policy to build up a substantial industrial capacity in the Arab oil states, both as a vehicle for future growth and a replacement for depeodence on oil.

This policy is not without its critics, who question the long-term viability of industries based in countries with mainly very small populations and a severe shortage of technological and managerial skills. But DAPEC maintains there is no real alternative to industrialisation and part of the price of the oil exchange must be the provision by the industrially-advanced countries of high grade industrial technology.

Among other things, DAPEC bas called for a relaxation of the embargo on the export of nuclear technology for peaceful purposes and a greater involvement by the industrial nations in establisbing modern industrial capacity in the Arab world.

In pursuit of its policy of industrialisation, DAPEC has been instrumental in the formation of a number of industrial and financial entities which are already making their economic and social mark on the Arab oil countries. These developments are parallel and additional to the national industrial programmes of the individual OAPEC members an are meant to complement rather than compete with local enterprises.

All of the OAPEC-sponsored companies are inter-Arab in character, jointly financed by the subscriptions of the OAPEC members. Not all the member states participate in every project, nor is equal subscription the rule; it is for the individual countries to decide on participation and the amount of capital subscription. The companies function independently and are meant to compete in the open market and conduct their business on a profitable basis.

The first of the DAPEC-sponsored companies to be formed was the Arab Maritime Petroleum Transportation Company (AMPTC), incorporated in 1973 and based in Kuwait. AMPTC elected to go for new building for its oil tanker fleet and found itself beginning operations in the middle of a world shipping recession. The company has lost money from its inception: the present forecast is for a net loss of $20.5m in 1980.

Future profitability is doubtful but OAPEC has its inter-Arab oil tanker fleet and the organisation is not short of money to keep it in being. The next OAPEC-sponsored venture was the Arab Shipbuilding and *Repair Yard* (ASRY), the dry-dock installation inaugurated in Bahrain in 1976. The project is capitalised at $300m and the yard is managed by Lisnave of Portugal.

Current occupancy is reportedly running at about 90 per cent of capacity and ASRY revenue in the first six months of this year was $11m. DAPEC has recently completed feasibility studies for a similar dry-dock facility in the Mediterranean, with Algeria selected as the location.

Another DAPEC - inspired creation is the formidable Arab Petroleum Investment Corporation (APICORP). Formed in 1975 with an authorised capital of about $1bn, of which a third is subscribed, APICORP has already invested in various oil projects in Algeria, Dman and Turkey. Last year the corporation made a net profit of Saudi Riyals 95.3m from revenues of SR 118.0m.

APICDRP bas already made its presence felt in the field of oil-related investment and it has the potential — and the financial support—to become a major force in the petroleum industry. Recently, APICORP'a charter was broadened to allow it to invest in oil projects throughout the world and the corporation announced that it is actively seeking oil situations in which, preferably, it can he an equity partner.

Ambition

It is not too fanciful to consider the possibility that one day APICORP could be a partner in British North Sea oil developments; APICORP has both the ambition and the capacity to do so and it is certain that the corporation'a investment analysts' sliderules have been run over the prospects.

OAPEC's efforts to establish direct commercial interests in the exploration and production areas of the oil industry is in the hands of the Arab Petroleum Services Company (APSC). This company, based in Tripoli in Libya, is a bolding company expresaly cbarged with the creation of aeparate companies to function in oil-related industries.

The Arab Drilling and Workover Company (ADWC) is APSC'a first offshoot. ADWC operates 15 drilling rigs in Libya and has been invited to extend its operations to Bahrain and Iraq. Ultimately, ADWC plans to be able to offer its services on a worldwide basis.

DAPEC's next steps in the industrialisation programme, for which it already has approval, include the establishment of the Arab Detergents Company with an initial capital of $200m; a company to produce basic Lube Oils, an Arab Engineering Consulting company; a company to specialise in the repair and replacement of ships' propellors; and an Electric Well Logging services company.

The measure of the success of these companies, both in being and planned, will not be taken only by a financial yardstick. To OAPEC the establishment of indigenous industries in the member states has a value beyond financial considerations. Also, with some justification, DAPEC believes it bas done more to create practical aspects of Arab economic unity than all the well-meaning but largely ineffectual political attempts to achieve the same goal.

In the long run DAPEC'a ambitious and far-reaching industrial programmes may or may not work, but whatever the outcome the Arab oil states are embarked on a process of enormous and irreversible change.

Increasing role as trade develops

GAS EXPORTS

MARTIN DICKSON

TWO MAJOR new policy moves this year by Algeria have highlighted the rapidly growing importance of the international gas trade — and the Middle East's significant role in it.

Algeria bas been calling for the creation of an international cartel of gas producers, on lines similar to the Organisation of Petroleum Exporting Countries (DPEC), which could fix world prices the way OPEC does for oil.

It has also been trying to push the price of natural gas up to parity with crude oil — a move which has involved it in a long pricing dispute with the major customers for its liquefied natural gas (LNG) — Gaz de France and the El Paso company in the U.S.

Last spring Algeria reduced to o trickle its supplies of LNG to Caz de France when this customer refused to accept a price rise from less than $3 per million British Thermal Units (BTUs) to $6. In the summer agreement was finally reached on a payment of $3 to $3.50 per million BTU. In an attempt to save face Algeria bas claimed that this is merely a down-payment towards a price yet to be fixed. But the fact remains that the settlement was a sbarp setback to its parity campaign.

The Algerian Government seems on the verge of reaching a similar compromise agreement with El Paso, whose LNG supplies it severed completely when the Houston-based company refused its price demands.

Whatever the outcome, both the pricing dispute and the cartel calls are symptomatic of the increasing importance of the international gas trade in a world where the energy supply-demand equation is finely balanced.

The international gas trade—both by pipeline and as LNG—amounted to about 170bn cubic metres last year, with some 27 per cent provided by the Netherlands, 21 per cent by the Soviet Union, 18 per cent by OPEC States (in the Middle East and Indonesia) and 16 per cent by Canada.

Trade is expected to double by 1990 and OPEC's sbare of it could rise to just over 35 per cent, with members of the cartel playing a predominant role in LNG movements.

At first sight it may seem surprising that the Middle East does not bave an even bigger role in the gas trade, given its pivotal role for the world oil industry. But it is relatively recently that the gas reserves of the Middle East have been exploited on any major scale.

The production of LNC, which involves cooling gas to minus 161 deg C, was pioneered by Algeria. It delivered the world's first LNG commercial cargo to Canvey Island, Essex, in October, 1964. Since then its LNC capacity has expanded rapidly, so that last year it was contracted to supply a total of 22.4bn cubic metres to customers in France, the U.S., Spain and the UK.

Brake applied

However, earlier this year Algeria applied the brake to its LNC expansion. It announced that it was not going to go ahead with construction of a third LNC plant at Arwez, on its western coastline, during its current plan period, which ends in 1984.

The move bas been a blow to Holland and West Germany, since Sonatrach, the Algerian State hydrocarbons group, had agreed to supply them from this plant with 224bn cubic metres of LNG over a 20-year period, atarting in 1984.

But Algeria does not seem to have ruled out the possibility of building the plant at a later date or, alternatively, sending the gas via a pipeline across the Mediterranean, possibly to Spain.

One advantage of a pipeline, from Algeria's point of view, is that this could transfer much of the burden of capital costs off the Algerian Government's shouldera and on to those of the recipients or pipeline operators.

As it is, a large proportion of Algeria's gas is to be moved to Europe via a $2-$3bn pipeline, currently under construction, stretching 1,500 miles from its eastern gas field of Hassi R'Mel to the Italian city of Bologna. This pipeline will initially carry 12.36bn cubic metres of gas annually.

Only one other Middle Eastern state—Iran—has relied on a pipeline for gas exports. In the Sbah's time Iran shipped 10bn cubic metres of gas a year to the Soviet Union via the Igat 1 line. The figure dropped to 3bn cubic metres in 1979 and exports ceased altogether earlier this year, for technical reasons and because of an Iranian-Soviet pricing dispute. Work bas been suspended on a aecond pipeline to the Soviet Union designed as part of a complicated pan-European aupply network.

Two other Middle Eastern states bave followed Algeria's move into LNG—Libya, which has been supplying France and Spain with up to 3bn cubic metres a year since the early 1970s, and Abu Dhabi, where a liquefaction plant with a design capacity of 3bn cubic metres a year has been operating on Das Island for the past three years.

A major question mark banging over the future of LNC supplies from the Gulf is what Qatar intends to do with the vast gaa reserves of its north-west Dome field, discovered offshore in 1972. Industry estimates suggest the field, arguably the world's biggest, could bold up to 2.8 trillion (million million) cubic metres.

Several other Middle Eastern oil producers bave decided to use much of their gas for domestic consumption. The most notable example of this approach is Saudi Arabia, which is undertaking a huge gas-gathering project whose costs could exceed $20bn.

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State takes a bigger stake in production

State Companies

RAY DAFTER

THE COMPLETION of the take-over by Saudi Arabia of the powerful Arabian American Oil Company (Aramco) in September set the seal on a trend that has fundamentally reshaped the international oil industry over the past decade.

Aramco had grown into the world's largest oil-producing company. It provided a vital flow of crude oil to its four U.S. partners—Standard Oil of California (Chevron), Texaco, Exxon and Mobil—while at the same time exerting considerable influence on U.S.-Middle East relations.

But even Aramco could not withstand the tide that has given oil-producing States, particularly members of the Organisation of Petroleum Exporting Countriea (OPEC) a greater direct stake in world oil prodnction. Since the early 1970s oil companies have seen their producing concessions either nationalised outright or partially taken over by the State.

Bnt the changing structure of the oil Industry has not stopped there. Producing governments and their State oil corporations are controlling an Increasing share of the international trade In crude and refined prodncts. Government - to - government deals are becoming more frequent.

Again Sandi Arabia—the world's biggest oil exporter—provides a case in point. In 1978 the direct crude sales of Petromin, the Saudl national oil company, amounted to 550,000 barrels a day (b/d). By September, when Saudi ontput was 9.5m b/d, Petromin's direct sales had risen to over 2m b/d. Since then the amount has increased further as a result of the Kingdom's decision to raise output to between 10m and 10.5m b/d as a partial offset to the disruption in world supplies caused by the Iran-Iraq war.

Crude Oil Disposals Under Government Involvement (year-end 1979)

	m b/d	% of total exports
Iraq	2.1	60
Iran	1.1	40
Libya	0.5	30
Kuwait	0.2	10
Nigeria	0.4	20
Saudi Arabia	0.8	9

Source: Jochen Mohnfeld, International Energy Ageecy; Petroleum Ecoоomist, August, 1980. Page 330.

It is not only the members of OPEC that have increased their State interest in production and trading. In Britain the British National Oil Corporation (BNOC) has been encouraged by both Labour and Conservative governments to play a major role in North Sea activities. As a result BNOC now claims to be the major North Sea explorer. It is also the most important trader of North Sea oil, handling about two-thirds of the UK output thanks to its equity interest, its access to royalty oil and its trading deals fixed by State participation arrangements.

These developments, which bave disassociated the decision-making of producing countries from oil requirements in consuming countries, "essentially represents the disintegration of the oil industry's former vertical structure," reports Mr. Jochen Mohnfeld, an oil market analyst in the International Energy Agency. "The era wben oil production was adjusted to oil demand, mainly by tbe consumer-country based private sector, has gone," he wrote in a recent edition of the *Petroleum Economist*.

- In 1970 some 94 per cent of the oil produced in non-communist countries was owned by private oil companies: 61 per cent of the total was in the hands of the seven major companies, the so-called "Seven Sisters"—Exxon, Royal Dutch/Shell, Gulf, Mobil, Standard Oil of California, Texaco and British Petroleum. According to Shell, by last year about 55 per cent of the ownership had been transferred to the governments of prodncing countries. The seven majors accounted for a quarter of the output with smaller private companies owning the remaining 20 per cent.
- At the time of the first energy crisis in 1973 major oil companies were selling in third party deals between 6m and 7m b/d of the 30m b/d available to them. This year, reports Mr. Mohnfeld, the majors will have traded less than 1m b/d of the 17.7m b/d available to them.
- Ten years ago State oil companies handled barely 1 per cent of OPEC's exports. By 1973 OPEC's national companies were exporting about 5 per cent of their countries' externally traded oil. Last year their share had risen to 46 per cent. Now, according to Dr. Fadhil al-Chalabi, OPEC's deputy secretary general, the oil producers' State oil companies are bandling over 12m b/d of crude and refined products, about half of the Organisation'a exports.

Against this trend it was perhaps inevitable that governments of countries heavily dependent oo oil imports should seek to become more involved in the internatiooal oil trade. In essence they felt uneasy about relying solely on the importing ability of the private companies in their midst. So government-to-government supply contracts are now on the increase. In some cases direct imports by State agencies or companiea are being supplemented by diplomatic moves tbat indirectly promote crude oil trade by private companies.

Figures again provided by Mr. Mohnfeld show tbat in 1973 only 1m b/d of oil was traded by non-communist countries as a result of government-to-government involvement. Last year some 5.8m b/d moved as a result of such deals: 1.5m b/d were imported by Japan, 2.5m b/d went to Europe and 1.8m b/d were bought by less developed countries.

Iraq, a strong advocate of such sales, was until the war with Iran, the OPEC member selling the largest volumes on a government level. Libya, regarded as a pioneer in restructuring relations between oil companies and producing countries, and Iran bave been others significantly involved in government contracts. (See accompanying table.)

Clearly there are political implications in these deals. As M. Nordine Ait - Laoussine, former executive vice-president of Sonatrach, Algeria'a State oil company, pointed out at the Second Oxford Energy Seminar in September: "It is, and always has beeo the case, that governments are more willing to trade with partners with whom they are in sympathy than with those whose aims and interests run counter to their own."

Discretion

One recent example of a government - to - government arrangement with political strings attached is the contract signed betwen Saudi Arabia and Deomark. Petromin, as the Kingdom's ageot, has won the right of "absolute discretion" to terminate the supply cootract if the Danish Government in any way brings the Saudi Government into disrepute.

Within the oil industry Japan is usually nominated as the country which initiated the wave of direct salea between government agencies. The Japanese Petroleum Developmeot Corporation was created as a quasi-governmental body to co-ordinate and promote oil developments by Japanese companies. France, Brazil, Italy and Spain are other major oil-consuming nations that have become deeply involved in government deals. It is no coincidence that all of these countries are particularly nervous about future imports of oil.

Shell, in its recently published briefing paper "The Changing World of Oil Snpply," points out that the main advantage geoerally attributed to government-to-government deals is that they increase the secority of oil supplies in an uncertain world. "Paradoxically, this is not necessarily the case," says Shell.

The company points out, with some justification, that importing countries have lost much of their insulation against political events because of the erosion of trading by non-political oil companies. "With the rapidly changing world political situation, and the many sensitivities involved, a number of such contracts have broken down."

Undoubtedly there has also beeo a reduction in the flexibility of the world oil market. Companies are now less able to switch a cargo from country A to country B. Government-to-government deals involve smaller quantities than the majors used to haodle aod, of course, they are tied to specific destinations.

As a result of all this, the oil companies maintain, extra storage and shipping facilities will be needed lo provide a measure of flexibility. Shell reckons that the extra stocks needed to cover the new requirements would be at least 150m barrels, worth well over $5bn.

The internatiooal oil market is still changing. In present circumstances one can only conclude that the influence of State oil companies will grow. There are already signs that producing countries want to become more involved in downstream activities—in refinery and petrochemical operations. Politics will play an increasing role in determining the price and ultimate destination of Middle East oil exports.

To return to M. Ait-Laossine's comments at Oxford: "The 'price of oil' will less and less be expressed in terms of cash, and more and more in terms of resource transfers, of technology as well as bardware. This non-commercial aspect of oil trade will inevitably lead to a further restructuring of the traditional supply channels than we bave seen so far."

Firmer plans to start downstream industry

Petrochemicals

SUE CAMERON

PLANS TO develop a petrochemical industry in the Middle East bave taken on a new impetus during the last two years—so mnch so that European producers are becoming seriously worried about the prospect of additional competitioo in tbeir own markets.

The possihility that Middle Eastern couotries would want to use their oil and gas as raw materials for making petrochemicals bas been on the cards for some time. But cbemical companies in the West believed there was little chance of such hopes being turned into reality for many years.

European producers knew that the oil and gas reserves of the Gulf States would give tbem a considerable cost advantage wben it came to petrochemicals production. But it was always argued that this advantage would be more tban cancelled out by the drawbacks attached to setting up a petrochemicals fndustry in the Middle East.

Chief among the many difficulties were:

- The shortage of native petrocbemicals expertise in the Middle East;
- the lack of a domestic market in an area that is still far from being fully developed;
- the cost of tranaport to export markets;
- the difficulties of putting up petrochemical plants on green field sites;
- the problems of operating such plants efficieotly once they were built.

It bas been estimated tbat in 1974 it was more economic io make petrochemicals in Europe than in the countries of tbe Gulf—even though the vital oil and gas raw materlals cost elght times more In Europe than io the Middle East.

But tbe revolntion in Iran and the ensuing dramatic increase in world oil prices put an entirely different complexion on the wbole picture. Suddenly tbe balance shifted so tbat the cost advantage of making petrochemlcals in the Gulf was no longer outweighed by the problems of operating a chemical business in tbe region.

The Iranian revolution also highlighted and intensified the cbanging balance of power in the oil markets of tbe world. Hitherto the time bad always been called by the internatiooal oil companies wbich controlled supplies of crude. But today it is the produciog countries themselves tbat increasingly govern oil supplies.

Moreover, many Middle East states bave sbown no besltatioo in using their oil barrel power to "persuade" Western chemical companies to set up joint venture projects. The Western companies provide part of tbe casb plus the marketing and production expertise that the Gulf States lack. In return they receive a given amount of crude.

A considerable number of very big joint venture petrochemical projects have been agreed between Middle East countries and U.S. or European-based oil-cum-chemical groups. Among them are:

- An agreement between the Shell group and tbe Saudi Basic Industries Corporation—SABIC—to build a $3bn (£1.5bn) joint venture petrochemicals project at Jubail on Saudi Arabia's eastern coast. SABIC and Pecten Arablan, a subsidiary of the U.S.-based Shell Oil, say the project will be built by 1984 and will come on stream a year later.
- An agreemeot between the Saudis and the U.S.-based Mobil to build a $2bn (£775m) petrochemicals complex at Yanbu on the Red Sea coast.
- A joint venture base chemicals deal between the Sandis and the U.S.-based Exxon group worth $1.1bn.
- Plans for Saudi Arabia to construct a $268m methanol plant in conjunction with a Japanese consortium headed by Mitsubishi.
- A joint project between Sandi Arabia and the Taiwan Fertiliser Compaoy to build $376m of ammonia and urea production capacity.
- An agreement between Qatar and the French-based CdF Chimie to build a basic petrochemicals plant and a plastics plant. The two plants are believed to be nearing completion.
- An agreement between Iran and a Japanese gronp to build a $3.5bn petrochemicals plant at Bandar Khomeini oo the Iranian Gulf coast. This project was 85 per cent completed before the overthrow of the Sbah; work on it tben stopped.

The halting of work on the Bandar Khomeini project pinpoints one of the difficulties of developing petrochemicals in the Middle East—the region is politically unstable, as the outbreak of war between Iraq and Iran last month once again illustrated. But although wars, revolutions and coups may delay some of the petrocbemicals schemes that are being or bave been planned, they will do no more than postpone them for a few years at most.

It seems inconceivable that the region sbould not eventually become a major area for petrochemicals production based on comparatively cheap and plentiful supplies of oil and gas feedstocks.

Opportunity

Apart from anything else, it is in the interests of the Western oil and cbemical companies to ensure that developments now being planned go ahead. Sbell Oil U.S., for example, is expected to obtain about 200,000 barrels a day of crude from Saudi Arabia as part of its $3bn petrochemical project deal. And Sbell, like the other major oil companies, needs firm supplies of crude.

Joint venture deals, like the one agreed by Shell, also give Western companies some opportunity to control the impact of Gulf petrochemicals production on their own markets. Some of the Western companies bope to encourage wbat they euphemistically call "responsible marketing policies" by the petrochemical producers of the Gulf.

Tbe Gulf States will be able to use the gas ethane as a raw material for making ethylene—the so-called building block of the petrocbemical industry used to make a wide range of things from plastics to solvents—and this is a more economic and efficient feedstock than the oil-based napbtha. It is significant that most of Europe's producers rely on napbtha—and imported naphtha at that—for manufacturlog their petrochemicals at present.

To date, countries like Saudi Arabia—and before the revolution, Iran—have led the Middle East in planning petrochemicals development. But other countries in the region are certain to bring more base chemical schemes of their awn to the drawing board during the next few years.

The result will be to turn the Middle East into a major centre of petrochemicals production. By the same token it is likely to push some European base chemical companies further downstream into the production of more specialised chemicals such as agrochemicals, pharmaceuticals and speciality plastics and intermediate products.

Profitable arrangements despite the upheavals

Oil Services

BY A CORRESPONDENT

THE WAR between Iran aod Iraq presents the companies servicing the Middle East oil industry with an unhappy paradox. No company can derive much pleasure from hearing that 30 or eveo 50 years of its work has hcen destroyed. Yet the end of the quarrel is likely to produce a major work hoom as the combatants struggle to restore their production and finances. The major oil companies now hold no direct stake in either country, which means that the national oil companies of both are dependent on outside contractors for most of their equipmeot and many specialist skills.

Since the first oil crisis in 1973/74 the nature of the industry in the Middle East has changed out of all recognition. From being owners of concessions which they developed and exploited largely as they saw fit the oil majors have become customers on the one hand and service companies developing oil resources on the other.

When the change first occurred it was widely viewed as disastrous for the oil companies. In fact it has been anything but that. One of Shell's managing directors noted recently that the company currently had more personnel working in the Middle East than when it owned the concessions.

Indications are that present arrangements are profitable and as direct involvement usually brings an entitlement to crude supplies the majors can now look back on the upheavals of the mid-seventies with composure.

In personnel the service companies operating in the Middle East considerably outnumber the oil companies. This bas come about in two phases. Immediately after World War II oil production started to rise rapidly and the increasing importance of the U.S. oil majors in its development brought with it their tradition of subcontracting to specialist companies. The second phase came with the growth of national oil companies which because of their lack of trained personnel were forced to rely on specialist subcootractors io every aspect of the industry.

Intensity

Use of subcontractors and service companies varies from country to country depending on the intensity of development activity. Some generalisations can however he made. For example, most geophysical surveying is done by contractors.

Producing countriea aometimes have several surveys and their interpretations done by different companies. Long gone are the days when only the oil companies had the experience and technology to prospect an area. Drilling is now dominated by contractors both onshore and offshore, though as in geophysical work the oil companies usually have a limited number of company-owned riga and crews.

The range of services associated with production—such as cementing, perforating, wirelining, acidising and flow testing — are all activities usually carried out by specialist companies. The latter are predominantly American and it is important to appreciate that although production in the Middle East is nearly three times that of the U.S., drilling activity is less than a tenth of the American level.

Currently there are around 3,500 rigs (800 more than in 1979) drilling for oil and gaa onshore and offshore in the U.S., while in the whole Middle East there are less than 200. This big home market is enough to ensure market domination by the U.S. oil service companies for drilling contractors, drill-bit suppliers and all the other services that go with drilling a well.

One of the most important effects of developments in the North Sea has been to give European manufacturers and suppliera a home market base from which to break into the highly lucrative markets such as the Middle East. Design of oilfield layouts and exploitation systems are still dominated by the oil companiea but the supply of equipments and materials is dominated by the service industries.

Although local fabrication capabilities are increasing throughout the Middle East, all valves, wellheads, BOPs and the like are manufactured in the U.S., Europe or Japan. Similar considerations apply to downstream activities like refining, petrochemicals, crude loading facilities and gas handling equipment.

Before the Iranian revolution and the current war it would not be an overstatement to say that everything was running the way of the service companies. The ambitious plans of the producers could only be implemented with massive assistance from Western-dominated oil supply companies. The traditional oil companies' relationship with the producing States was such that the latter were keen to have either a second opinion or an alternative route to reliance on the oil companies. This alternative route can be summarised as building up their national oil companies, contracting in skills they have yet to acquire and using local compaoies wherever and wheoever they had the necessary capabilities.

The construction hoom across the Middle East bas produced a large, mobile, semi-skilled workforce operating across the entire area. It consists of many natiooalities, though it is predominantly Arah and/or Muslim, Palestinians, Syrians, Jordanians, Yemenis, Pakistanis and Indians are numerically the most important groups. When it comes to highly skilled technicians the area is less well supplied with most of the senior personnel coming from the U.S., Europe and Japan. At the intermediate level increasing numbera of technically trained Arabs are now available for work in the area, the first generation to receive modern Western technical edncation and now coming on to the joh market.

Production levels in the Middle East were static or declining even before the present conflict. The fact that governments have predominantly stabilised or redneed production levels bas not, however, reduced exploration and development work. The reason for this is that in addition to seeking the exact size and extent of their reserves, governments are keen to ensure the most efficient and effective development of a finite resource.

The biggest single project in the history of the Middle East is the current $20bn Saudi gas-gathering scheme and associated with it the trans-Arabia pipeline and the refining and petrochemical complexes at Al Juhail and Yanbu. Although the enormity of the Saudi projects overshadow others in the area all the countries in the Middle East plao to collect and exploit their associated and non-associated gas reserves. Abu Dhabi is actively developing some of its smaller offshore oilfields while Qatar is planning the development of the massive Dome offshore gasfield.

Iraq before the war was the fastest expanding producer in the area and a major market for goods and services. Its future at the moment is clouded with uncertainty but the cost of the war must mean that it will try to restart oil exports as quickly as possible. For exactly the same reason Iran is likely to become a market for oil industry services even to restore relatively low levels of productioo.

Oman, whose production bad been in decline, is linking in the reserves of the south of the country and recent drilling success means that production will rise. Some of the smaller emirates which currently have no oil or gas production are actively exploring in the hope of emulating their rich neighbours.

Key areas

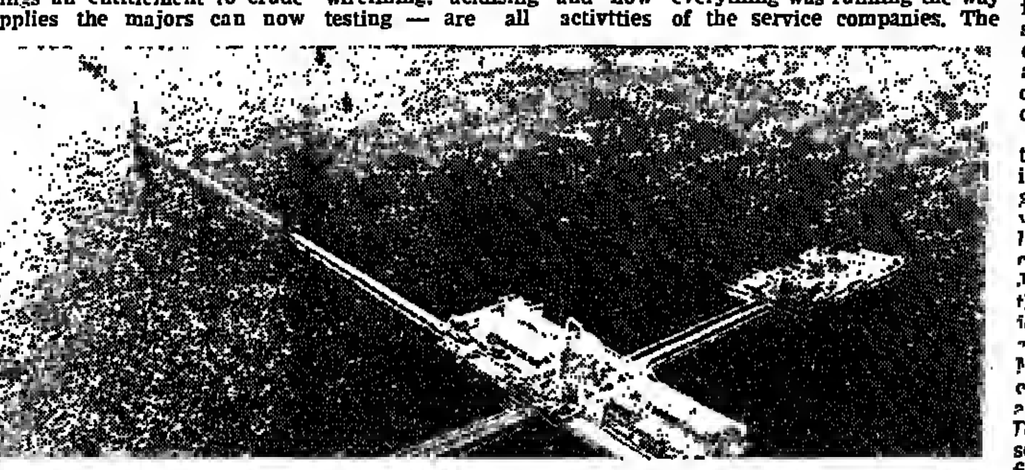
There were three key areas in the Middle East which have been used by servicing and contracting companies as hases. The facilities established in Saudi Arahia and the United Arah Emirates (predominantly Abu Dhabi) are still active but those in the third area, Iran, have had to be written off following the revolution. This loss has naturally made the companiea more circumspect about investments in the area and more and more companies are now holding the bulk of their stocks in Europe or the U.S. and flying them out as they are required. This route minimises the exposure in an area which has become demonstrably more unstable.

The upheavals in the area bave prompted many questions about future developments. The eventual outcome of the Iran-Iraq war and its effects are currently unknown and quite unpredictable.

Service companies, like most others directly involved, divide into two camps. The optimists believe that the area's need for cash in the form of oil exports will force development with its dependence on Western skills and services. The pessimists on the other hand believe that a fundamental change bas occurred and that future development will he more closely matched to local requirements. The extreme pessimists even argue that the concept of slow economic development, paralleled by slow development of oil and gas resources, will spread to the whole Middle East.

For the oil service companies the outcome will determine whether the area returns to the status of the number one area for expansion or becomes an important but slowly growing market.

An Aramco employee shows a drill bit to Saudi visitors at a rig site



The Fateh Field, centre of Dubai's offshore oil operations. This self-contained unit houses 150 men

Refineries dragged into the list of war targets

Security

PATRICK COCKBURN

IRAQ'S ATTACK on Iran was what everybody in the Gulf most feared. For the first time two major oil producers were at war and did not hesitate to attack each other's oil facilities. Within a week Iraqi shells were raining down on Iran's main refinery at Ahadan. The Iranians replied in kind, jet bombers zeroing in on refineries, pumping stations and loading systems from Basra to Kirkuk.

Yet four weeks after the war hegan the results bad not bad the immediate, catastrophic effect which might have been predicted. Other Gulf producers decided to keep out of it. Having examined the various political alternatives open to their small and militarily vulnerable States, Saudi Arabia and the others decided, as they have so often done in the past, to do nothing.

In part the relative calm with which the news of war was received was a result of the traumas which oil producers and consumers had been through in the two years since strikes first crippled the Iranian oilfields in the last months of the Shah. Iranian crude exports bad slumped to 700,000 barrels a day in April. Stocks in the West were high.

But the importance of the war on future views of the security of oilfields in the Middle East lies in the fact that oilfields are no longer sacrosanct. It bad heen argued that the economy of every Gulf State is so dependent on oil that nobody would wish to attack an enemy's oil production. A counter-attack was too easy.

Support

In the early 1970s, for instance, and particularly in 1974/75 Iran and Iraq were on the point of war because of the Shah's support for the Iraqi Kurds. Iranian artillery provided tactical support for the rebels. Mr. Saddam Hussein, now President of Iraq, made it clear that while he might well lose a war against Iran he would still fight to the last round and if defeated he could take the Iranian oil facilities in Khuzestan province with him. It was noticeable that the Shah restrained the Kurds he hacked from attacking the Iraqi oilfields around Kirkuk.

Other examples can be found. The Israelis did attack Syria's Banias refinery in 1973 and before then the Egyptians had lost their Sinai fields. But it was still a common joke in Syria that the safest place during an Israeli air raid was under Tapline. Oil, so popular wisdom went, was sacrosanct.

Oil was too important to be left to the generals. Immediately after the 1973-74 oil price rises U.S. Secretary of State Dr. Henry Kissinger made hawkish noises about occupation of the Gulf oilfields, though further investigation revealed that the threat was largely rhetorical and that the one place where the U.S. had the capacity to intervene militarily, the Saudi fields, could be very badly damaged by the time they arrived.

The threat which currently worries the West most is not the medium-term absence of oil from Iran and Iraq, although this is clearly stiffening the price levels which the OPEC hawks were finding difficult to hold. Immediately after the war began eyes turned once again to the Strait of Hormuz.

The threat to the Strait haa become something of a political cliche over the past two years. But it is no less potent for the fact that the problem has heen argued over so endlessly. The Iranians can still, if driven to desperation, simply announce that they will try to stop or attack the next oil tanker passing through the Strait. It does not matter whether they have sufficient mines or artillery batteries to prevent all tankers getting past. The threat alone will increase tanker insurance to the point where the premium would become too high to carry.

Fortunately the worst moment in the war, the first week, passed without Iraq attacking the Iranian-held islands near the mouth of the Gulf. The U.S. was restrained in the aid it gave to Saudi Arabia. Everybody bad too much to lose from a conflict in such a crucial area.

Washington was hopeful of the restraint shown by the Soviet Union in the first week of the war. Moscow already had alliances with Syria and Iraq, although a war of words continues between the Soviets and Tehran. It is difficult, however, to helieve that the Iranians will he able to conduct a prolonged war, as they have sworn to do, and at the same time maintain a foreign policy of glorioua isolation in which they spurn all possible allies.

How far, then, is there a real Soviet threat to the Gulf? The evidence for this is the invasion of Afghanistan at the beginning of the year and the suggestions that the Soviets will hegin to run ahort of oil in the mid-1980s. This is slender evidence. Control of some wrecked oilfields is unlikely to attract the Soviets and Afghanistan is not a good ataging post from which to attack through Iran. The road systems run north/south not east/west.

Eagerness

For Arab rulers in the region Washington's claim that the Russian bear is about to march south to the waters of the Gulf has not won many friends. Local rulers are wary of Western powers showing undue eagerness to defend them, particularly since the West's need for Gulf oil is so much greater than the Soviet Union's. When President Carter aonounced his intention to defend the Gulf at the beginning of the year Kuwait and the other small oil producers hegan to get extremely worried.

The problem for the oil producers is that with the exception of Iran and Iraq none of them can put into the field a considerable army. None can face aggression from outside with any confidence and none wishes to call in outside assistance. All the wealth in the world does not solve this problem.

All the arms purchases which Saudi Arahia and Libya have made over the past decade are not enough to make up for a amall population. Technical skills are too thinly apread to allow for independent air forces —not reliant on Western technicians—to operate. The U.S. air force bas its own considerable problems in maintaining its aircraft.

The weakness of the Iranian armed forces in the fighting has been less the will or the capacity to fight of its armed forces hut the weakness of its logistics. This is partly the result of purges but is probably equally true of the armies of other oil producers. Endless red tape, incompetence, corruption and too mnch equipment makes it extremely difficult for any army to obtain the supplies from its own reserves to fight a prolonged war.

During the Iran-Iraq war there is little the other Gulf producers can do except desperately try and avoid involvement. Difficult though their position is they can at least note with some satisfaction that internally the Gulf States have remained stable and the outhreaks of sectariao violence sometimes predicted in the Western media have not come to pass. The danger lies in external aggression, not internal subversion.

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WEEK'S FINANCIAL DIARY

The following is a record of the principal business and financial engagements during the week. The Board meetinga are mainly for the purpose of considering dividends and official indications are not always available whether dividends concerned are interims or finals. The sub-divisions shown below are based mainly on last year's timetable.

TODAY

COMPANY MEETINGS—
Dowding and Mills Chamber of Commerce, 75, Harborne Road, Birmingham, 12.00
Estates Property Inv., Armourer's Hall, 81, Coleman Street, EC, 12.00
Ferry Pickering, Allen House, Newarke Street, Leicester, 12.00
Marler Estates, Hyde Park Hotel, Knightsbridge, SW, 11.30
Mills and Allen, Winchester House, 100, Old Broad Street, EC, 12.00
Saint Piran, Midland Hotel, Peter Street, Manchester, 9.30

BOARD MEETINGS—
Finals:
Berry Trust
Majedie Invs.
Interims:
Graig Shipping
Panto (P.)
Ropner

DIVIDEND & INTEREST PAYMENTS—
Acorn Securities Income 12.6p
BET Omnibus Services 5¼pcPf. 1.925pc
Bank of Scotland Cap. 8pc
Banro Cons. Inds. 0.575p. 5pcPf. 2.5pc
British Vita 2.6p
C.A. Cavendes Sociedad Financiera Fltg. Rate Dep. Finally due 1986 US$26.44
Carlton Inds. 4p
Citicorp. 35½cts
Continental Illinois Corp. 45cts
Dickinson Robinson Grp. 3p
Dowding and Mills 0.95p
Family Inv. Tst. 2.40p
Glossop (W. and J.) 1.576p
HAT 1p
Highlands and Lowlands Berhad 0.58708p
Investment Tst. of Guernsey 4p
Kershaw (A.) 8p. B Pf. (12½pc) 4.375pc
Metal Closures 2.2p
Mills and Allen Int. 11p
Mountleigh 3p
North British Canadian Inv. 1.75p
Ocean Transport and Trading 4.3p
Pernambuco (Recife) (C. of) 5pc Gtd.Ln. Bds. (Plan A Int. 1¾) 2½pc
Rank Organisation 8.8p
Royal Worcester 2.9p
Scottish Agricultural Inds. 5.75p
Trada Indemnity 2.2pc
Trans-Oceanic Tst. 5pcPf. 1.75pc
Travis and Arnold 9.64p
Treasury 15¼pc 1996 7⅝pc
Treasury 12pc 1987 £2.4425
United States Deb. Corp. 2p
Whatman Reeve Angel 1.6p
Whittingham (William) 2.25p

TOMORROW

COMPANY MEETINGS—
Armstrong Equipment, Waldorf Hotel, Aldwych, WC, 12.00
Staffordshire Potteries, North Stafford Hotel, Stoke-on-Trent, 12.30

BOARD MEETINGS—
Finals:
Allied London Properties
Arenson (A.)
Martonair Intnl.
Sainguard Industrial Invs.
Interims:
Ambrose Inv. Tst.
Bradford Property Tst.
Clarke (Clement)
Continental and Industrial Tst.
Polymark Intnl.
Roberts, Adlard
St. George's Laundry
Scotcros
Sketchley

DIVIDEND & INTEREST PAYMENTS—
Associated Book Publishers 2.8p
Belfast 6¼pcRed. 1977-80 3¼pc
Clifford's Dairies and A 1.25p
Estates Property Inv. 3.75p. New 1.782767p
Guinness Peat 4.25pc
Marler Estates 1p
Wadkin 1.5p
Willis Faber 3.8pc

WEDNESDAY, NOVEMBER 5

COMPANY MEETINGS—
Priest Marians, Oakhill House, Hildenborough, Tonbridge, Kent, 4.30
Zetters, 86-88, Clerkenwell Road, EC, 11.30

BOARD MEETINGS—
Final:
Bellway
Interims:
Capper-Neill
Hill (Philip) Inv. Tst.
London Tst.
Mountview Estates
Sainsbury (J.)
Usher-Walker
Warner Holidays

DIVIDEND & INTEREST PAYMENTS—
Albany Inv. Tst. 0.6p
Berwick Timpo 5½pcPf. 1.925pc
Bowater 4.25p
Link House Publishing 5.6p
London and European 0.7p
London and St. Lawrence Inv. 0.58p
Neill (James) 1.4p
Scottish Northern Inv. Tst. 1.2p
Sharpe and Fisher 0.55p

THURSDAY, NOVEMBER 6

COMPANY MEETINGS—
Celtic Haven, The Offshore Centre, Pier Road, Pembroke Dock, Dyfed, West Wales, 12.00
Sizewell European Inv., 20, Birchin Lane, EC, 12.30
Tor Inv. Tst., 6, Caer St., Swansea, 10.15
Westminster and Country Props., Winchester House, 100, Old Broad Street, EC, 12.00

BOARD MEETINGS—
Finals:
Jessups
Mass Engineering
Ramar Textiles
Samuel Properties
Tricoville
Wellco
Wemyss Inv.
Interims:
Airflow Streamlines
Bank of Ireland
Boot (Henry)
Grampian Television
Guardian Inv. Tst.
Hambros Inv. Tst.
Headlam Sims and Coggins
Milletts Leisure
Oxley Printing
Save and Prosper Linked Inv. Tst.
Whittingham Engineering

DIVIDEND & INTEREST PAYMENTS—
Amalgamated Metal Corp. 5p
Arndale Property Tst. Ln. 3¼pc
Assoc. British Foods Db. 3¼pc
Barrow Hepburn 0.8p
Brixton Estates Db. 3⅞pc
Bromsgrove Casting and Machinery 3p
Brooke Bond Liebig Ln. 3½pc
Burton Ln. 3½pc
Cadbury Schweppes Ln. 4¼pc
Carpets Intnl. Db. 4¼pc. Ln. 4½pc
Courtaulds 6pcPf. 2.1pc. Lns. 3½ 3⅞pc
Dalta Metal Db. 5⅜pc
Distillers Ln. 3⅞pc
Eleco Db. 3¼pc
Emess Lighting 3.5p
Fisher (James) 1p
Harris and Sheldon 1.25p
Hurst (Charles) Motors Db. 3¼pc
Metal Box Ln. 5¼pc
Standard Telephones and Cables 4p
Tilling (Thomas) Ln. 4¼pc
Tor Inv. Tst. Income 5.6p (Incl. Bonus 0.7p). Capital 0.84p (Incl. Bonus 0.07p)
Whitbread Ln. 3⅞pc
Zetters 1.75p

FRIDAY, NOVEMBER 7

COMPANY MEETINGS—
Adwest, Intercontinental Hotel, Hamilton Place, W, 12.00
Bristol Channel Ship Repairers, Channel Dry Dock, Cardiff, 11.30
Second City Props., Birmingham Metropole, National Exhibition Centre, Birmingham, 11.00

BOARD MEETINGS—
Finals:
Bridport-Gundry
Ulster Television
Interims:
De Vere Hotels and Restaurants
Rush and Tompkins
Scottish Ontario Inv.

DIVIDEND & INTEREST PAYMENTS—
BBA Db. 5pc
BLMC Ln. 3⅜pc
Blue Circle Db. 5¼pc
Bracken Mines 28.113287p
Bristol Channel Ship Repairers 4p
British Empire Securities and Gen. Tst. 0.85p
Burns-Anderson 1.4p
Burroughs Corp. 65cts
Cowie (T.) Ln. 5pc
Cray Electronics 1.43p
EMI Lns. 2½ 3½ 3⅞ 4¼pc
Expanded Metal 2p
Firmin 1.9p
Hall Engng. 3.41p
Harmony Gold Mining 110.76926p
Kinross Mines 59.489399p
Kwahu 1.84p
Leslie Gold Mines 17.223856p
London Merchant Secs. 9.8p
Meat Trade Suppliers 4.375p
Midland Inds. 1.1p
Minty 3p
Moran (Christopher) 2.9pc
Otrex 1.17p
Ratcliffe (F. S.) 4.25p
Refuge Assurance 3.9p
Rentokil 0.95p
St. Helena Gold Mines 232.241576p
Sheffield Brick 9.75p
Sizewell European Inv. 2.4p
South British Insurance 16cts
Tarmac 5.5p
Transport Development 1.45p
Ultramar 4p
Unisel Gold Mines 22.224074
Walker (James) Goldsmith and Silversmith Ord. and NV 3p
Western Mining Corp. 7cts
Wilkinson Warburton 1.94p
Winkelhaak Mines 143.800881p

SATURDAY, NOVEMBER 8

DIVIDEND & INTEREST PAYMENTS—
Nottingham 3pc (Irrd.) Gas Anns. £1.625
Tioxide 5¼pc
Wilmot Breeden Db. 3⅞pc

SUNDAY, NOVEMBER 9

DIVIDEND & INTEREST PAYMENT—
Southwark 5¼pcRed. 1983-86 3⅞pc

Rand Mines Properties Limited

RMP

(Incorporated in the Republic of South Africa)
A Member of the Barlow Rand Group

1. CONSOLIDATED PROFIT AND DIVIDEND

The audited consolidated results of the group for year ended 30 September 1980, with the 1979 comparative figures, were as follows:

	1980	1979
Turnover	31 888 000	21 398 000
Profit before taxation	9 305 000	4 899 000
Taxation (Note (1))	3 003 000	627 800
Profit for the year after taxation	6 302 000	4 272 000
Less: Profit attributable to outside shareholders in subsidiary companies	33 000	21 000
Consolidated profit after taxation	6 269 000	4 251 000
Less: Dividend No. 13 of 24 cents per share (1979: 17 cents per share)	2 977 000	2 109 000
Retained surplus for the year	3 292 000	2 142 000
Number of shares upon which earnings per share is based	12 403 337	12 403 337
Earnings per share based on consolidated profit after taxation	50.5 cents	34.3 cents
Not included in the above results are the following:		
Surplus on sale of investments and properties held as fixed assets (Note (2))	4 369 000	—
Timber rights written off (Note (3))	(750 000)	—
Cost of control of acquiring outstanding shares in a subsidiary company written off	—	(89 000)

Notes:

(1) The higher effective rate of taxation as compared to the 1979 financial year is primarily attributable to a lower level of non-taxable income being received.

(2) During the year the group has disposed of its investments in Midsteel (Proprietary) Limited, Barwing Properties (Proprietary) Limited, Transvaal Gold Mining Estates Limited and Northcliff Erf Thirty-Two (Proprietary) Limited for a total consideration of R8 034 000 of which R5 256 000 has been received in cash and the balance is repayable over three years. The surplus on disposal of these investments amounted to R4 733 000.

In addition, Thesen and Company (Proprietary) Limited has sold certain properties held as fixed assets for R272 000 in cash, which is R136 000 in excess of book value. The total surplus on the sale of the above assets will be recorded as an extraordinary item in the annual financial statements.

(3) The balance of the Thesens timber rights valued at R750 000 has been written off as a prior year adjustment, which is a change in the company's accounting policy.

(4) The annual financial statements will be mailed to shareholders on or about 24 November 1980.

2. DIVIDEND DECLARATION

Notice is hereby given that dividend number 13 of 24 cents per share has been declared payable to shareholders registered in the share register of the company at the close of business on 21 November 1980.

The transfer books and registers of members of the company in Johannesburg and the United Kingdom will be closed from 22 November to 30 November 1980, both days inclusive. Dividend warrants will be posted on or about 12 January 1981 to shareholders at their registered addresses or in accordance with their written instructions received up to and including 21 November 1980.

The dividend is declared in the currency of the Republic of South Africa. The rate of exchange at which the dividend will be converted into United Kingdom currency for payment of the dividend from the office of the United Kingdom Transfer Secretaries will be the telegraphic transfer rate of exchange between Johannesburg and London ruling on the first business day after 31 December 1980.

In terms of the South African Income Tax Act 1962, as amended, non-resident shareholders' tax of 15 per cent has been imposed on dividends payable to:

(a) persons other than companies, not ordinarily resident nor carrying on business in South Africa, and

(b) companies which are not South African companies and are not carrying on business in the Republic,

and the company will accordingly deduct the tax from dividends payable to shareholders whose addresses in the share register are outside South Africa.

3. SAND RETREATMENT

Further to the announcement contained in the company's interim report to members published on 7 May 1980, we advise that the retreatment of material on the Crown Mines property will be conducted by a newly formed company named Rand Mines Milling and Mining Company Limited, which is a wholly owned subsidiary of Crown Mines Limited.

The new company will be recognised as a post-1966 gold mine for income tax purposes. Capital allowances granted to post-1973 gold mines will also apply.

An additional 10 million tons of treatable material has been identified on the Crown Mines property bringing the total tonnage to be retreated to approximately 60 million.

The capital expenditure required to establish the optimum size operation, estimated at R40 million at May 1980 prices, will be financed from internal cash resources and from arranged borrowings of R40 million.

It is estimated that commissioning of the plant will take place in the financial year ending 30 September, 1982 and that full capacity operation will be achieved during the 1983 financial year.

For and on behalf of the board
D. T. WATT
A. B. HALL } Directors
J. R. FORBES

31 October 1980

Registered Office:
Off Main Reef Road,
Crown Mines, Johannesburg 2092
(P.O. Box 27, Crown Mines 2025)

Transfer Secretaries:
Rand Registrars Limited
Second Floor
Devonshire House
49 Jorissen Street
Braamfontein
(P.O. Box 31719, Braamfontein 2017)

United Kingdom Transfer Secretaries:
Charter Consolidated Limited
P.O. Box 102, Charter House
Park Street, Ashford
Kent TN24 8EQ

Herbert tools plant sold

WHITE Consolidated Industries of the U.S. has formally completed its purchase of the Mackadown Lane, Birmingham, machine tool manufacturing complex from Alfred Herbert. The company is now trading as White-BSA Tools Limited.

WCI—which earned $62.9m on sales of $2bn last year—took its first financial interest in the machine tool industry in 1964. After a number of major acquisitions it has emerged among the largest American manufacturers of machine tools.

MSC 'should pay for training'

THE Engineering Industry Training Board wants the Manpower Services Commission to continue paying the operating costs—mainly salaries—of each industry's ITB.

It opposes the recommendation in the MSC's review of the Employment and Training Act 1973 that industries should pay the costs after a brief transitional period. But the board says if the Government accepts the recommendation then the transitional period should be extended.

Canberra force to be reduced

THE Ministry of Defence announced yesterday that it had decided to reduce the number of Canberra aircraft in service with the RAF.

Two photographic and reconnaissance squadrons based at RAF Wyton will be disbanded and other squadrons reduced in number and amalgamated.

Tax refunds

THE Value Added Tax (Repayment to Community Traders) Regulations 1980 will come into operation on January 1, subject to approval by the House of Commons. They provide for the refund of VAT incurred by registered taxable people in EEC member states other than those in which they are registered.

VAT leaflet

CUSTOMS and Excise has issued VAT leaflet 727/4/80, which explains the special procedure available to pharmacists using a VAT retail scheme described in Customs Notice No. 727.

1979/80

Year of Consolidation

It was resolved at the Annual General Meeting of Norsk Hydro a.s. held in Oslo on October 31, 1980 to pay a dividend of 12 per cent on both ordinary and preference shares.

It was further resolved that with effect from January 1st, 1981 the company's financial year shall commence the first of January and end on December 31st so as to be concurrent with the calendar year.

The following are key points of the report of the Directors for the financial year ended June 30, 1980.

Financial Results

Total Group sales in the 1979/80 financial year were N.kr. 14.1 billion (1 billion = 1,000 million), 55 per cent higher than the preceding year. The increase was due first and foremost to the marked rise in prices for oil and oil products during the year but the growth in the volume of oil and gas produced from Ekofisk and Frigg was also a significant factor. During the year both these fields reached what is expected to be the peak level of production.

The most important of the company's energy-based industrial products such as light metals and fertilizers also obtained higher prices on international markets.

The Netherlands-Belgian fertilizer company NSM contributed rather more than one billion kroner to the increase in turnover.

Depreciation rose from N.kr. 1,174 million in the previous year to N.kr. 1,604 million for 1979/80. The operating profit after depreciation increased from N.kr. 1,116 million to N.kr. 2,461 million this year.

Net financial costs increased from N.kr. 749 million to N.kr. 903 million and profit before year-end adjustments and taxes was N.kr. 1,467 million for the year compared with N.kr. 339 million the year before.

Taxation has risen to N.kr. 444 million this year, an increase of N.kr. 368 million compared with the preceding year. After taxes, before year-end adjustments, the net profit for 1979/80 was N.kr. 1,114 million compared with N.kr. 291 million last year.

Operations 1979/80

From the spring of 1979 onwards prices and marketing conditions for our main products improved rapidly, a trend which continued through most of the 1979/80 financial year.

The unstable world political situation, not least in Iran, contributed to this trend, which in many respects recalls what happened in connection with the 1974 oil crisis. As a result of the accelerated demand and the build-up of customers' inventories, the market reacted during the spring of 1980, with reduced demand and for many products also a tendency towards falling prices. This was particularly marked in the USA, but towards the end of the financial year the trend also became apparent in Western Europe.

Nitrogen

As a whole, the financial result for the company's Norwegian fertilizer operations was approximately in line with that for the previous year.

The most important event on the fertilizer sector was the purchase of the Netherlands/Belgian fertilizer company NSM. This took place in the autumn of 1979, and in its first financial year as a Hydro-owned company NSM achieved good financial results. The purchase of NSM has substantially strengthened Norsk Hydro's position as a large international fertilizer producer, and has made Hydro the biggest single exporter of urea, the most important fertilizer product in international markets.

Petroleum

Of the company's nine divisions, the Petroleum Division was by far the largest contributor to the year's profit. Both the Ekofisk area and the Frigg field have now reached peak production of oil and gas, and this fact, together with the steep price rises for crude oil and oil products already mentioned, is the main reason why the Hydro Group's profit was significantly better than was anticipated at the beginning of the financial year.

It is very encouraging that the extensive exploration in which the company has taken part over the last year has yielded promising results. There is reason to expect that block 34/10, where Hydro has nine per cent, will be declared commercial in the course of the current financial year. On several other concessions where the company is a partner hydrocarbons have been found, and the find on block 31/2, where large quantities of gas were discovered in the first three wells, is particularly interesting. Norsk Hydro has a five per cent share in this block.

In June this year Norsk Hydro started exploration for oil and gas off Northern Norway. The areas north of the 62nd parallel are very interesting, but it will take a long time, and require large investments, to investigate the possibilities on this part of the continental shelf, where working conditions can be even more exacting than in the North Sea. The work was unfortunately hampered by the strike on the drilling platforms in the summer of 1980, and it was therefore only possible to complete the drilling of one well on each of the three concessions allocated.

Petrochemicals

Market conditions for the company's petrochemical products continued to improve during the financial year up to the spring of 1980. There was a substantial rise in prices for the products of the Bamble plants and demand was considerably greater than in the previous year. In addition, supplies of raw material from Teesside have been stable since the autumn of 1979. Altogether this meant that the Bamble plants achieved a considerably better financial result than in 1978/79, and also somewhat better than was expected at the beginning of the year. In spite of these relatively favourable conditions their heavy financial costs were still far from fully covered.

Towards the end of the financial year the weakening of the international economic situation led to a down-turn in the market, with falling prices and a fresh drop in demand.

Light metals

Market conditions for aluminium were good, and prices for both primary metal and semi-fabricated products rose. The financial result was therefore better than for the preceding year, in spite of some production problems in the reduction plant at Karmøy.

For some time the company has had plans ready for expanding the reduction capacity at Karmøy by about 50,000 tonnes a year. It was decided in September 1980 to go ahead with the Karmøy project. The full cost of the expansion is estimated at around one billion kroner, and it can be ready for production in 1982.

Magnesium sales remained at about the 1978/79 level. The market was stable throughout the year, but the financial result was not completely satisfactory. The main reasons for this were substantial cost increases and heavy depreciation, a result of the extensive investments which have been made in our magnesium facilities at Porsgrunn in recent years. The new production equipment has not yet reached the planned capacity.

Finance

Investments in 1979/80 were approximately N.kr. 1.6 billion, compared with N.kr. 1.1 billion the year before. The increase of N.kr. 500 million is less than the N.kr. 850 million paid for the NSM shares which were purchased in September 1979. This transaction was financed by drawing on existing bank credits abroad.

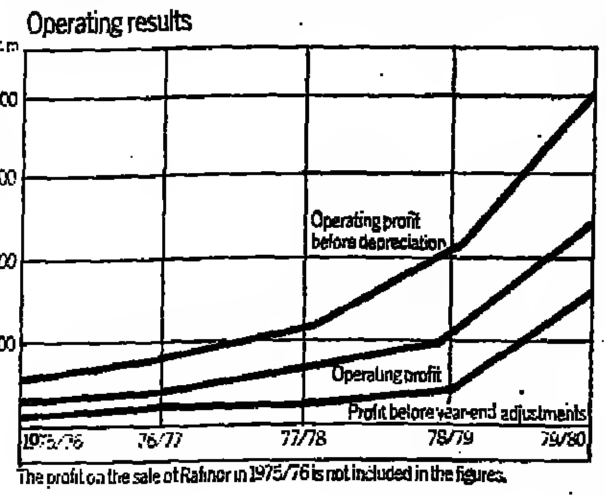
On the whole the 1979/80 financial year was one of consolidation for the company.

The increased cash flow, together with the approximately 420 million kroner resulting from the increase in the company's share capital at the turn of the year 1979/80, made it possible to repay amounts on long term bank loans abroad in excess of the normal instalments of N.kr. 585 million on these loans. In the course of the financial year the Group's long term debt was reduced by about 1.3 billion kroner, and now stands at about eight billion kroner. More than two thirds of this debt was incurred in connection with the company's North Sea operations and the Bamble plants.

Future prospects

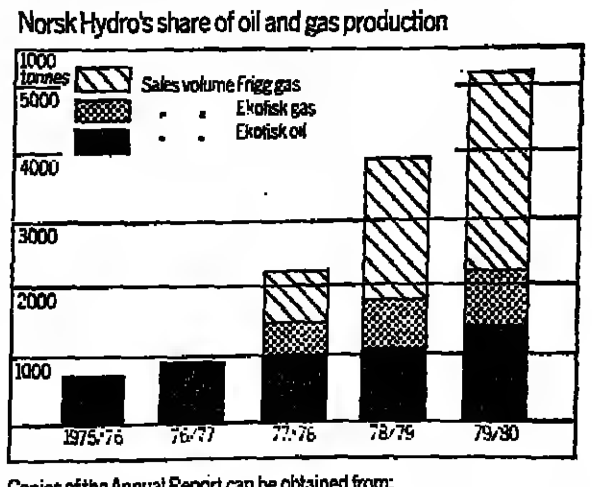
As already mentioned, the greater part of Norsk Hydro's pre-tax-profit comes from petroleum activities. The Norwegian regulations for taxation of petroleum income will take a considerable portion of this income in future years. For the 1979/80 financial year taxes take only a comparatively limited proportion of earnings, due to the fact that it has been possible to make use of unapplied tax allowances accumulated over several years. The tax regulations will mean that further increases in oil and gas prices will have only a limited effect on the company's earnings after tax.

Operating results



The profit on the sale of Rafnor in 1975/76 is not included in the figures.

Norsk Hydro's share of oil and gas production



Copies of the Annual Report can be obtained from:
Norsk Hydro (U.K.) Limited, Concord House, The Centre, High Street, Feltham, Middlesex.

Oil, gas, fertilizers, aluminium, magnesium, plastics and laminates.

Norsk Hydro

Companies and Markets **INTL. COMPANIES & FINANCE**

Conrail draws on Federal funds as losses increase

BY DAVID TONGE IN NEW YORK

CONSOLIDATED RAIL Corporation (Conrail), the major north-east American freight and commuter rail network, has reported doubled third-quarter losses of $79.3m. It has been obliged to draw down a further $227m of the Federal funding approved when the Government created Conrail out of the wreckage of the collapsed Penn Central railway company in 1976. It has now drawn $3.1bn of the $3.3bn authorised at that time.

Conrail blamed the increased losses and the 5 per cent decline in revenues to $936.1m in the third quarter on the general business downturn in the north-east of the U.S.

It said that carloadings in the third quarter were 41.8 per cent lower than figures in the same quarter of 1979 for motor cars, 24.6 per cent down for car components, 28 per cent down for semi-finished iron and steel shipments, and 48.3 per cent down for iron ore. The car and steel industries have been among the industries most hit by the business downturn, but Mr. Edward Jordan, the chairman of Conrail, who is retiring this year, says volume trends gradually improved in the third quarter and this process is continuing.

He also welcomed the deregulation of the railroads which is now taking place. The necessary legislation was signed into law by President Carter on October 14.

Mr. Jordan, who is to be replaced by Mr. L. Stanley Crane, former chairman of Southern Railway, the Washington-based company, says this Act will allow railroads to compete, as their suppliers and customers do. According to an estimate, one of its effects will be to increase rail companies' revenues from coal freight by $150m next year.

In the first nine months, Conrail's losses totalled $203m, compared with $130m a year earlier, while revenues were level at $2.9bn.

BCCI in Zimbabwe venture

BY OUR FINANCIAL STAFF

BCCI HOLDINGS (Luxembourg) and the Zimbabwe Government have signed an agreement to establish a joint venture commercial bank in Zimbabwe — the first new bank in the country for more than 20 years. The bank will be called the Bank of Credit and Commerce (Zimbabwe) and will have an authorised, issued and fully paid-up capital of $ (Zimbabwe) 6m (about U.S.$ 9.6m). Senator Enos Nkala, the Minister of Finance, said that although the Government would have a "significant shareholding" in the new bank, it would still be subject to existing banking legislation in the normal way. The bank will encourage business enterprise in rural as well as urban areas and will actively pursue a policy of training Zimbabweans in all aspect of banking practice so as to fit them "as speedily as possible for key positions at all levels of management in the bank," the Minister said.

BCI will become the fifth commercial bank in Zimbabwe after Standard Chartered, Barclays International, Rhobank and Grindlays. One other international bank — the Bank of America — is currently investigating the possibility of taking an equity stake in the South African controlled Rhobank, whose majority shareholder is Nedbank. The Bank of America has had a team in Zimbabwe looking at Rhobank over the past fortnight.

Our Banking Correspondent writes: BCCI was formed in 1972, and is the fast-expanding brainchild of Mr. Agha Hasan Abedi, who had previously worked with the Pakistani Habib Bank and the United Bank of Pakistan. Today it has 45 branches in the UK, and a further 145 or so in 40-odd other countries.

At one time, Bank of America held a 25 per cent stake in BCCI, but some years ago that relationship became uneasy. In July this year it finally completed the sale of its holding.

BCCI has strong Arab connections, and was initially launched with Middle East money.

The British BCCI subsidiary is a licensed deposit-taker under banking law. The bank had sought, but failed to achieve, the status of a recognised bank.

Signs of recovery at Gotaas Larsen

By Our Financial Staff

GOTAAS-LARSEN Shipping, the Bermuda-based owner and operator of cruise liners, tankers and dry cargo ships, said in London that its net profit had increased in the 1980 third quarter. But, for the first three-quarters of the year, there was a loss, against a profit for the same period in 1979.

Third quarter net was $3m or 31 cents a share, up from $2m or 42 cents for the third quarter of last year. Gotaas-Larsen was sold to shareholders of former parent IU International in 1979.

Revenue for the three months to September fell to $31.7m from $41.3m a year earlier. Revenue for the nine months was $21.6m, down from $29.4m a year earlier.

On a cumulative basis, the first nine months of 1980 showed a net loss of $5.5m against net profit of $6.6m for the same period of 1979.

Earnings per share on the group profit for the nine months of 1980 are 6 cents, down from $1.22 for the comparable period.

Mr. Kenneth A. B. Trippe, president and chief executive, said that several elements of the company's business which helped to improve third quarter results included the fixing of a 15-year charter for its liquefied natural gas carrier, Golar Freeze, completion of the sale of the minority interest in an offshore drilling rig, the profitable sale of the very large crude oil carrier, Golar Nichu, and "substantially reduced" foreign exchange losses.

PENDING DIVIDENDS

For the convenience of readers the dates when some of the more important company dividend statements may be expected in the next few weeks are given in the following table. The dates shown are those of last year's announcements, except where the forthcoming board meetings (indicated thus*) have been officially published. It should be emphasised that the dividends to be declared will not necessarily be at the amounts or rates per cent shown in the column headed "Announcement last year."

	Date	Announcement last year		Date	Announcement last year
Acrow	Nov. 6	Int. 1.5	*Hambros	Nov. 20	Int. 52.6
Akroyd and Smithers	Nov. 22	Final 15.0	Hill Samuel	Nov. 14	Int. 1.834
*Allied Breweries	Nov. 26	Int. 2.0	Johnson Matthey	Nov. 28	Int. 3.0
*Allied Irish Banks	Nov. 12	Int. 2.75	*Kwik Save Discount	Nov. 20	Final 2.2
Anderson Strathclyde	Nov. 22	Int. 1.0	*Land Secs.	Nov. 11	Int. 2.5
Assoc. Brit. Foods	Nov. 5	Int. 1.1	London and Mid. Inds.	Nov. 8	Int. 2.9
ANZ	Nov. 19	Final 12.0	*Lucas Inds.	Nov. 10	Final 8.433
*Avon Rubber	Dec. 3	Final 6.357	*Metal Box	Nov. 24	Int. 8.47
*BPB	Nov. 15	Int. 4.0	Pauls and Whites	Nov. 22	Int. 1.75
*Bank of Ireland	Nov. 6	Int. 7.5	Powell Duffryn	Nov. 22	Int. 4.25
*Beecham	Nov. 19	Int. 2.88	Readicut Intl.	Nov. 7	Int. 0.55
*Boots	Nov. 13	Int. 2.875	Redland	Nov. 22	Int. 2.67
Brit. & Comm. Shipping	Nov. 15	Int. 5.5	Renold	Nov. 22	Int. 2.8
*British Sugar	Nov. 13	Final 5.885	Rthemns. Intl.	Nov. 22	Int. 1.0
Brockhouse	Nov. 22	Final 2.65	Royal Bank Scotland	Nov. 29	Final 2.4
Brown (M.)	Nov. 28	Final 3.826	*Sainsbury (J)	Nov. 5	Int. 3.0
Burton	Nov. 21	Final 7.0	*600 Group	Nov. 27	Int. 2.34
Capital and Counties	Nov. 23	Int. 1.0	*Sketchley	Nov. 4	Int. 2.9
*Chloride	Nov. 13	Int. 1.7	*Smith Inds.	Nov. 11	Final 8.136
Courtaulds	Nov. 22	Int. 2.888	Smith (W.H.)	Nov. 13	Int. 2.0
Dawson Intl.	Nov. 26	Int. 2.0	Tesco	Nov. 21	Int. 2.0
*De La Rue	Nov. 11	Int. 8.8	*Unilever	Nov. 11	Int. 8.94
Elliott (B.)	Nov. 28	Int. 5.0	Wedgwood	Nov. 21	Int. 1.75
*French Kier	Nov. 27	Int. 0.95	*Whitbread	Nov. 10	Int. 1.494
*Great Portland Estates	Nov. 10	Int. 1.0	*Wigly-Hughes	Nov. 14	Final 8.764

* Board meeting intimated. † Rights issue since made. ‡ Tax free. § Scrip issue since made. ¶ Forecast.

Public Works Loan Board rates

Effective from November 1

Years	Quota loans repaid by EIP†	A‡	at maturity§	Non-quota loans A* repaid by EIP†	A‡	at maturity§
Up to 5	13⅞	13½	13⅞	14⅛	14	13⅞
Over 5, up to 10	13⅞	13¼	13¼	13⅞	13¾	13¾
Over 10, up to 15	13⅝	13¼	13⅛	13⅞	13¾	13¾
Over 15, up to 25	13⅞	13⅛	13⅛	13¾	13⅝	13⅝
Over 25	13⅞	13⅛	13⅛	13⅜	13⅝	13⅝

* Non-quota loans B are 1 per cent higher in each case than non-quota loans A. † Equal instalments of principal. ‡ Repayment by half-yearly annuity (fixed equal half-yearly payments to include principal and interest). § With half-yearly payment of interest only.

CORAL INDEX: Close 483-488 (−8)

LOCAL AUTHORITY BOND TABLE

Authority (telephone number in parentheses)	Annual gross interest	Interest payable	Minimum sum	Life of bond
	%		£	Year
Knowsley (051 548 6555)	13¼	½-year	1,000	4-5
Redbridge (01-478 3020)	13½	½-year	200	5-6

BASE LENDING RATES

A.B.N. Bank	16 %	■ Hambros Bank	16 %
Allied Irish Bank	16 %	■ Hill Samuel	§16 %
American Express Bk.	16 %	C. Hoare & Co.	†16 %
Amro Bank	16 %	Hongkong & Shanghai	16 %
Henry Ansbacher	16 %	Keyser Ullmann	16 %
A P Bank Ltd.	18 %	Knowsley & Co. Ltd.	18 %
■ Arbuthnot Latham	16 %	Langris Trust Ltd.	16 %
Associates Cap. Corp.	16 %	Lloyds Bank	16 %
Banco de Bilbao	16 %	Edward Manson & Co.	17 %
BCCI	16 %	Midland Bank	16 %
Bank of Cyprus	16 %	■ Samuel Montagu	16 %
Bank of N.S.W.	16 %	■ Morgan Grenfell	16 %
Banque Belge Ltd.	16 %	National Westminster	16 %
Banque du Rhone et de la Tamise S.A.	16½ %	Norwich General Trust	16 %
Barclays Bank	16 %	P. S. Refson & Co.	16 %
Bremar Holdings Ltd.	17 %	Rossminster	16 %
Brit. Bank of Mid. East	16 %	Ryl. Bk. Canada (Ldn.)	16 %
■ Brown Shipley	16 %	Schlesinger Limited	16 %
Canada Perm't Trust	17 %	E. S. Schwab	16 %
Cayzer Ltd.	16 %	Security Trust Co. Ltd.	17 %
Cedar Holdings	16 %	Standard Chartered	16 %
■ Charterhouse Japhet	16 %	Trade Dev. Bank	16 %
Choulartons	16 %	Trustee Savings Bank	16 %
C. E. Coates	16 %	Twentieth Century Bk.	16 %
Consolidated Credits	16 %	United Bank of Kuwait	16 %
Co-operative Bank	*16 %	Whiteaway Laidlaw	16½ %
Corinthian Secs.	16 %	Williams & Glyn's	16 %
The Cyprus Popular Bk.	16 %	Wintrust Secs. Ltd.	16 %
Duncan Lawrie	16 %	Yorkshire Bank	16 %
Eagil Trust	16 %		
E. T. Trust Limited	16 %		
First Nat. Fin. Corp.	18 %		
First Nat. Secs. Ltd.	18 %		
Robert Fraser	16 %		
Antony Gibbs	16 %		
Greyhound Guaranty	16 %		
Grindlays Bank	‡16 %		
■ Guinness Mahon	16 %		

■ Members of the Accepting Houses Committee.
* 7-day deposits 14%, 1-month deposits 14½%.
† 7-day deposits on sums of £10,000 and under 14%, up to £50,000 14½% and over £50,000 15%.
‡ Call deposits over £1,000 14%.
§ Demand deposits 14½%.

Companies and Markets **CURRENCIES, MONEY and GOLD**

Too much of a good thing

BY COLIN MILLHAM

Technically the money market was in comfortable surplus for most of last week, but on occasions one or two houses found themselves short of late balances after picking up money very easily for most of the day.

A certain amount of indigestion developed because although many banks were keen to lend funds to the discount market, the houses were somewhat reluctant to give it a home, as they were nearing their limits on the "multiplier." This is the ratio between the size of the book run by a house and its net asset base.

In recent years difficult trading conditions have forced houses to reduce their books at a time when the overall banking sector was expanding, partly due to the growth of foreign banks in London.

The reminder from the authorities that banks must maintain the correct reserve asset ratios at all times, and that these will be subject to spot checks, was a major factor behind the large amounts of money offered to the houses last week—since a call money with a discount house is a reserve asset. But the shrinking size of the discount market in relation to the banks has led to problems, with the houses needing to get rid of any surplus with the help of the Bank of England. This is done by the authorities selling bills to the houses, but last week the bills offered were generally too long dated to be attractive to the houses. The low yield on Treasury bills makes it difficult for the houses to run them on their books at a profit.

Another cause of market indigestion was the difficulty for those with funds to agree with borrowers a reasonable rate for secured overnight money. With money freely available at 14 per cent in the morning—reflecting the reserve asset situation—houses sometimes found that the cheap money dried up before they had balanced their books. But the banks with funds, and presumably with the correct reserve asset ratios, were asking at least 15 per cent for late money. With the market technically in surplus the houses were reluctant to pay as much, leaving banks to carry forward surplus balances from day to day.

OTHER CURRENCIES

Oct. 31	£	$		£ Note Rates
Argentina Peso	4745-4766	1948-1955	Austria	38.85-38.20
Australia Dollar	2.0750-2.0790	0.8525-0.8530	Belgium	74.45-75.20
Brazil Cruzeiro	147.18-148.18	60.48-60.89	Denmark	14.24-14.36
Finland Markka	9.15½-9.14½	3.7530-3.7540	France	10.63-10.75
Greek Drachma	105.241-107.771	43.50-43.45	Germany	4.63-4.27
Hong Kong Dollar	12.32½-12.34	5.0625-5.0645	Italy	2185-2280
Iran Rial	n.a.	n.a.	Japan	515-520
Kuwait Dinar(KD)	0.651-0.657	0.2688-0.2689	Netherlands	4.98-5.03
Luxembourg Frc.	74.80-74.30	30.46-30.48	Norway	12.08-12.81
Malaysia Dollar	5.2175-5.2275	2.1435-2.1455	Portugal	122½-140
New Zealand Dlr.	2.4930-2.4970	1.0240-1.0250	Spain	178-188½
Saudi Arab. Riyal	8.06-8.12	3.3220-3.3235	Sweden	10.37-10.49
Singapore Dollar	5.0750-5.0850	2.0845-2.0865	Switzerland	4.17½-4.31½
Sth. African Rand	1.8275-1.8285	0.7500-0.7506	United States	2.43-2.45
U.A.E. Dirham	8.93-9.02	3.6685-3.6900	Yugoslavia	79-82

Rate given for Argentina is free rate.

GOLD

	Oct. 31		Oct. 30	
Gold Bullion (fine ounce)				
Close	$628-631	(£257¾-259)	$641-644	(£263¾-264)
Opening	$640-645	(£262¾-263½)	$640-643	(£282-265¼)
Morning fixing	$636	(£260.848)	$643.50	(£265.209)
Afternoon fixing	$629	(£258.157)	$649.50	(£265.050)
Gold Coins				
Krugerrand	$651-653	(£267-269)	$661-663	(£271-278½)
1/2 Krugerrand	$334-338	(£136-138)	$334-338	(£135-130)
1/4 Krugerrand	$169-171	(£69-73)	$177-181	(£68-71)
1/10 Krugerrand	$68-71	(£27½-30½)	$70½-72½	(£28-30)
Mapleleaf	$645-649	(£265½-266½)	$654½-658½	(£267½-270½)
New Sovereigns	$160-161	(£66½-66½)	$162¾-163¾	(£66¼-67¼)
King Sovs.	$181-183	(£74-76)	$181-183	(£74-76)
Victoria Sovs.	$181-185	(£74-76)	$181-185	(£74-76)
French 20s	$183-185		$163½-166½	
50 pesos Mexico	$783-787		$799-802	
100 Cor. Austria	$616-619		$626-650	
$20 Eagles	$738-742		$750-754	

THE DOLLAR SPOT AND FORWARD

Oct. 31	Day's spread	Close	One month	% p.a.	Three months	% p.a.
UK†	2.4325-2.4425	2.4360-2.4370	0.45-0.35c pm	1.97	1.06-0.96 pm	1.66
Ireland†	1.9610-1.9700	1.9670-1.9700	0.40-0.50c dis	−2.74	0.65-0.75dis	−1.42
Canada	1.1764-1.1786	1.1764-1.1768	0.25-0.20c pm	2.29	0.75-0.70 pm	2.46
Nethlnd.	2.0815-2.0660	2.0620-2.0630	1.15-1.05c pm	6.40	3.12-3.02 pm	5.95
Belgium	30.46-30.61	30.46-40.48	10½-9c pm	3.84	25-22 pm	3.08
Denmark	5.8615-5.8700	5.8615-5.8640	1-½ore pm	1.53	.10pm-.40dis	−0.10
W. Ger.	1.9000-1.9140	1.9020-1.9030	1.00-0.95pf pm	6.15	3.00-2.95 pm	6.25
Portugal	51.50-51.75	51.50-51.60	par-10c dis	−1.18	par-40 dis	−1.55
Spain	75.21-75.35	75.24-75.29	60-80c dis	−11.18	180-210 dis	−10.36
Italy	897.50-902.90	899.00-901.00	2½-3½lire dis	−4.33	12-13 dis	−5.56
Norway	4.9620-4.9680	4.9665-4.9680	1.65-1.15ore pm	3.38	3.35-2.85 pm	2.50
France	4.3775-4.4000	4.3775-4.3825	1.80-1.50c pm	4.25	4.35-4.20 pm	3.90
Sweden	4.2570-4.2610	4.2570-4.2585	0.40-0.25ore pm	0.91	par-0.20 dis	−0.09
Japan	211.00-212.25	211.20-211.30	0.70-0.50y pm	3.41	2.75-2.60 pm	5.06
Austria	13.48½-13.51½	13.48½-13.49½	4.50-4.00gro pm	3.78	12.50-11.00pm	3.48
Switz.	1.7090-1.7240	1.7120-1.7130	1.56-1.51c pm	10.76	4.15-4.10 pm	9.63

† UK and Ireland are quoted in U.S. currency. Forward premiums and discounts apply to the U.S. dollar and not to the individual currency.

THE POUND SPOT AND FORWARD

Oct. 31	Day's spread	Close	One month	% p.a.	Three months	% p.a.
U.S.	2.4325-2.4425	2.4360-2.4370	0.45-0.35c pm	1.97	1.06-0.96 pm	1.68
Canada	2.8640-2.8750	2.8650-2.8680	1.25-1.15c pm	5.02	2.95-2.85 pm	4.05
Nethlnd.	4.99½-5.05½	5.00-5.01	3¾-2¾c pm	7.79	9½-8½ pm	7.19
Belgium	74.15-74.90	74.20-74.30	38-28c pm	5.33	90-80 pm	4.58
Denmark	14.28-14.36	14.28-14.27	5¼-3½ore pm	3.53	6⅞-5¾ pm	1.70
Ireland	1.2370-1.2440	1.2375-1.2385	0.33-0.28p pm	2.96	0.64-0.59 pm	1.99
W. Ger.	4.62½-4.67	4.63-4.64	3½-2½pf pm	8.09	9½-8½ pm	7.88
Portugal	125.40-125.30	125.60-125.80	18-10c pm	1.34	29-58 dis	−1.38
Spain	183.10-183.70	183.15-183.25	120-175c dis	−9.26	375-455 dis	−9.06
Italy	2187-2206	2187½-2188½	2½-4½lire dis	−2.06	20¼-23¼ dis	−3.98
Norway	12.05-12.73	12.06-12.07	5⅞-4⅞ore pm	5.10	12½-11½ pm	3.98
France	10.65½-10.75½	10.66-10.67	5½-4½c pm	5.62	14-13 pm	5.06
Sweden	10.36-10.41	10.37-10.38	2½-1½ore pm	2.60	4½-3½ pm	1.44
Japan	512-522	514-516	3.25-2.75y pm	7.00	8.85-8.25 pm	6.65
Austria	32.80-33.00	32.85-32.90	16-13gro pm	5.29	41-36 pm	4.68
Switz.	4.16-5.21	4.18½-4.17½	4½-3½c pm	11.87	11½-10½ pm	10.55

Belgian rate is for convertible francs. Financial franc 74.35-74.45. Six-month forward dollar 1.45-1.35c pm. 12-month 1.75-1.60c pm.

FT LONDON INTERBANK FIXING (11.00 a.m. OCTOBER 31)

3 months U.S. dollars		6 months U.S. dollars	
bid 15 5/16	offer 15 7/16	bid 15 3/16	offer 15 5/16

The fixing rates are the arithmetic means, rounded to the nearest one-sixteenth, of the bid and offered rates for $10m quoted by the market to five reference banks at 11 am each working day. The banks are National Westminster Bank, Bank of Tokyo, Deutsche Bank, Banque Nationale de Paris and Morgan Guaranty Trust.

EURO-CURRENCY INTEREST RATES (Market Closing Rates)

Oct. 31	Sterling	U.S. Dollar	Canadian Dollar	Dutch Guilder	Swiss Franc	West German Mark	French Franc	Italian Lira	Asian $	Japanese Yen
Short term	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7 days' notice	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Month	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Three months	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Six months	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
One Year	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Long-term Eurodollar two years [illegible] per cent; three years [illegible] per cent; four years [illegible] per cent; five years [illegible] per cent nominal closing rates. Short-term rates are call for sterling, U.S. dollars, Canadian dollars and Japanese yen; others two-days' notice. Asian rates are closing rates in Singapore. The following nominal rates were quoted for London dollar certificates of deposit: one-month 14.60-14.70 per cent; three-months [illegible] per cent; six-months [illegible] per cent; one year [illegible] per cent.

LONDON MONEY RATES

Oct. 31 1980	Sterling Certificate of deposit	Interbank	Local Authority deposits	Local Auth. negotiable bonds	Finance House Deposits	Discount Company Deposits	Discount Market deposits	Treasury Bills ♦	Eligible Bank Bills ♦	Fine Trade Bills ♦
Overnight	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2 days notice	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7 days or	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7 days notice	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
One month	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Two months	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Three months	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Six months	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Nine months	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
One Year	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Two years	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Local authority and finance houses seven days' notice, others seven days fixed. Long-term local authority mortgage rates nominally three years [illegible] per cent; four years [illegible] per cent; five years [illegible] per cent. ♦ Bank bill rates in table are buying rates for prime paper. Buying rates for four-month bank bills [illegible] per cent; four-month trade bills [illegible] per cent. Approximate selling rate for one-month Treasury bills [illegible] per cent; two-months [illegible] per cent; three-months [illegible] per cent. Approximate selling rate for one-month bank bills [illegible] per cent; two-months [illegible] per cent; three-months [illegible] per cent; one-month trade bills [illegible] per cent; two-months [illegible] per cent; three-months [illegible] per cent. Finance Houses Base Rates (published by the Finance Houses Association) 19 per cent from November 1, 1980. Clearing Bank Deposit Rates for sums at seven days' notice 14 per cent. Clearing Bank Rates for lending 16 per cent. Treasury Bills: Average tender rates of discount 13.3334 per cent.

CURRENCY RATES

Oct. 31	Bank rate %	Special Drawing Rights	European Currency Unit
Sterling	16	0.529074	0.552876
U.S. $	11	1.29004	1.34784
Canadian $	12.16	1.51667	1.58750
Austria Sch.	6¾	17.4287	18.2299
Belgian F.	12	39.4784	41.1097
Danish K.	11	7.57184	7.90609
D'mark	7½	2.46896	2.56987
Guilder	8	2.66071	2.77775
French Fr.	9½	5.67861	5.92181
Lira	16½	1159.61	1211.04
Yen	9.25	272.843	285.228
Norwgn. Kr.	9	6.40699	6.69311
Spanish Pts.	8	97.0162	101.414
Swedish Kr.	10	5.49622	5.75919
Swiss Fr.	3	2.21846	2.31265

RECENT ISSUES

EQUITIES

Issue Price p	Amount Paid Up	Latest Renunc. Date	1980 High	1980 Low	Stock	Closing Price p	+ or −	Div.	Times Covered	Gross Yield	P/E Ratio
[illegible]											

FIXED INTEREST STOCKS

Issue price £	Amount Paid Up	Latest Renunc. Date	1980 High	1980 Low	Stock	Closing Price £	+ or −
[illegible]							

"RIGHTS" OFFERS

Issue price p	Amount Paid Up	Latest Renunc. Date	1980 High	1980 Low	Stock	Closing Price p	+ or −
[illegible]							

Renunciation date usually last day for dealing free of stamp duty. b Figures based on prospectus estimate. g Assumed dividend and yield. u Forecast dividend; cover based on previous year's earnings. F Dividend and yield based on prospectus or other official estimates for 1979. Q Gross. T Figures assumed. ‡ Cover allows for conversion of shares not now ranking for dividend or ranking only for restricted dividends. § Placing price to public. pt Pence unless otherwise indicated. ¶ Issued by tender. || Offered to holders of ordinary shares as a "rights." ** Issued by way of capitalisation. §§ Reintroduced. ¶¶ Issued in connection with reorganisation, merger or takeover. |||| Introduction. □ Issued to former preference holders. ■ Allotment letters (or fully-paid). ● Provisional or partly-paid allotment letters. ★ With warrants. †† Unlisted security. ‡ Dealings under special rule. ‡‡ London Listing. ★ Resettling from debt settlement scheme.

UNIT TRUST SERVICE

OFFSHORE & OVERSEAS—contd.

[illegible]

FT UNIT TRUST INFORMATION SERVICE

AUTHORISED UNIT TRUSTS

Abbey Unit Tst. Mngrs. (a) (z)
72-80, Gatehouse Rd., Aylesbury 0296 5941

Abbey Amer. Gth. Tst.	52.4	56.3	-0.4	2.58
Abbey Capital	45.0	48.4	-0.1	5.04
Abbey General	56.0	60.5	-0.7	5.19
Abbey Gilt & F.I. Tst.	114.5	121.5	-0.7	11.36
Abbey Income	33.8	36.5xd	-0.3	9.48
Abbey WWide Bd Tst.	87.3	92.4	-0.8	7.25
Abbey Inv.Tst.Fd.	49.9	53.9	-0.9	4.71
Equitas Prog. Tst.	84.4	91.2xd	-2.8	4.73

Allen Harvey & Ross Unit Tst. Mngrs.
45, Cornhill, London EC3V 3PB. 01-623 6314.

AHR Gilt Trust	93.1	98.0	-0.4	12.39

Allied Hambro Ltd. (a) (g)
Hambro Hse., Hutton, Brentwood, Essex.
01-588 2851 or Brentwood (0277) 211459

Balanced Funds				
Allied 1st	89.3	95.6	-0.8	6.04
Brit. Inds. Fund	79.6	85.2	-0.6	6.27
Growth & Income	50.7	54.2	-0.6	5.13
Elect. & Ind. Dev.	44.3	47.4xd	-0.4	5.27
Allied Capital	95.7	102.4xd	-0.9	4.05
Hambro Fund	136.4	145.9	-1.4	5.93
Hambro Acc. Fund	182.5	195.3xd	-2.0	4.66
Income Funds				
High Yield Fd.	64.7	69.2	-0.4	9.68
High Income	77.7	83.1	-0.6	7.64
A. H. Eq. Inc.	45.9	49.1	-0.3	7.45
Govt. Secs.	25.5	26.2xd	-1.3	11.87
International Funds				
International	33.6	36.0	+0.2	2.75
Pacific Fund	59.1	63.2	+0.6	1.93
Secs. Of America	64.0	68.5	-0.5	2.32
Specialist Funds				
Smaller Co.'s Fd.	55.1	59.0	-0.2	4.24

[illegible]

Craigmount Unit Tst. Mgrs. Ltd.
Bucklersbury, London EC4N 8BD. 01-248 4984

High Income	36.2	39.5xd	-0.3	11.42
North American	55.6	59.1	-1.0	2.90
Canadian Exempt*	62.3	65.9xd	.....	3.57
Canadian Trust	60.5	65.4xd	-2.3	2.74
Mid Mount High Inc.*	49.6	52.4	.....	9.20
Recovery	56.8	62.0xd	-0.7	6.95
Gilt Trust	44.8	46.9	-0.4	12.36

*Weekly dealing day Wednesday.

Crescent Unit Tst. Mngrs. Ltd. (a)(g)
4 Melville Cres., Edinburgh 3 031-226 4931

Cres. Amer. Fd.	35.5	38.3xd	-0.7	0.97
Cres. Internat'l.	69.3	74.8	-0.9	2.35
Cres. High. Dist.	41.0	44.3xd	-2.0	10.58
Cres. Reserves	52.3	56.4	-0.8	5.31
Cres. Tokyo	24.7	26.6	+0.1	0.70

Dartington Unit Trust Mngt. Ltd.
Bridge Chambers, Barnstaple, Devon 0271 76324

Total Perf. Unit Tst.	23.9	25.2xd	.....	13.20

Discretionary Unit Fund Managers
36/38 New Broad St, EC2M 1NU. 01-638 4485

Disc. Inc. Oct. 24	228.4	243.6	.....	5.60

E. F. Winchester Fund Mngt. Ltd.
44, Bloomsbury Square, WC1A 2RA 01-623 8893

Great Winchester	17.4	19.3	.....	8.70
Gt. Winchester O'seas	24.8	27.6	.....	4.05

Emson & Dudley Tst. Mngmnt. Ltd.
28b Albemarle St., W1. 01-493 3211

Emson Dudley Tst.	91.7	98.8	.....	6.00

Equity & Law Un. Tr. M.♥ (a)(b)(c)
Amersham Rd., High Wycombe. 0494 33377

Equity & Law	88.1	92.7xd	-0.1	4.73

Fidelity International Management Ltd.
62-63 Queen St, London EC4 1AD 01-248 4891

American	29.6	32.1	-0.7	0.95
Gilt + Fixed Int.	25.4	26.8xd	-0.2	12.18
Growth + Income	31.4	33.8	-0.3	7.18
Special Sits.	38.4	41.3	-0.4	2.09

[illegible]

INSURANCE PROPERTY BONDS

[illegible]

Providence Capitol Life Asse. Co. Ltd.
30 Uxbridge Road, W12 8PG. 01 749 9111

Sel. Mkt. Fd. Std.	143.9	151.8		
Pension Equity	178.1	183.4		
Pension Fxd. Int.	150.2	154.7		–
Deposit Fd. Acc.	57.5	60.6		–
Ind Pens.Dep Fd.Acc.	47.6	50.2		–
Equity Fd. Acc.	63.3	67.7		–
Ind Pens.Eq.Fd.Acc.	51.1	53.9		–
Fxd. Int. Acc.	56.9	60.0		–
Ind Pens. Fxd Int.Acc.	47.8	50.4		–
Intnl. Acc.	46.7	49.2		–
Ind Pens Intnl Acc.	48.4	51.0	...	–
Managed Fd. Acc.	59.3	62.5	...	–
Ind Pens Man.Fd Acc.	49.1	51.8	...	–
Property Fd. Acc.	76.8	81.0	...	–
Ind Pens Prop Fd.Acc.	48.1	50.7	.....	–

Provincial Life Assurance Co. Ltd.
222 Bishopsgate, EC2. 01-247 6533

Prov. Managed Fd.	152.2	160.3	.....	–
Prov. Cash Fd.	127.0	133.6	+1.1	–
Gilt Fund	139.1	146.5	-1.5	–
Property Fund	135.1	142.1	+4.9	–
Equity Fund	140.4	147.8	-1.3	–
Fxd. Int. Fund	115.9	122.1	-0.6	–

Prudential Pensions Limited◊
Holborn Bars, EC1N 2NH. 01 405 9222

Equity Fd. Oct. 15	36.32	37.44		
Fixed Int. Oct. 15	24.50	24.82		
Prop. Fd. Oct. 15	41.16	42.43		

Reliance Mutual
Tunbridge Wells, Kent. 0892 22271

Rel. Prop. Bds.		299.3	+3.0	-

Rothschild Asset Management
St. Swithins Lane, London EC4. 01-626 4356

N.C. Prop.	159.0	169.1	.....	–

Next sub. period Dec. 31/Jan. 15.

Royal Insurance Group
New Hall Place, Liverpool. 051-227 4422

Royal Shield Fd.	198.1	209.6	.....	–

Save & Prosper Group
4, Gt. St. Helen's, Lndn., EC3P 3EP. 01-554 8899

[illegible]

Welfare Insurance Co. Ltd.♥
Winslade Park, Exeter. 0392-52155

Moneymaker Fd.		122.7	+1.4	–

For other funds, please refer to The London & Manchester Group.

Windsor Life Assur. Co. Ltd.
Royal Albert Hse., Sheet St., Windsor 68144

Investor Units	97.8	102.8	+3.7	–
Accum. Pen. Units	146.8	154.4	+6.9	–
Flex. Inv. Growth	125.9	132.5	.....	–
Future Assd Growth	30.0(a)	60.0(b)	.....	–
Ret. Ass'd Pen.		£32.53	+1.93	–

OFFSHORE & OVERSEAS FUNDS

Albany Fund Management Limited
P.O. Box 73, St. Helier, Jersey. 0534 73933

Albany S Fd. (CI)	US$170.07	172.38xd	.....	1.29

Next dealing Oct. 31.

Alexander Fund
37, rue Notre-Dame, Luxembourg.

Alexander Fund		US$14.12	.....	–

Net asset value Oct. 20.

Allen Harvey & Ross Inv. Mgt. (C.I.)
1 Charing Cross, St. Helier, Jsy., C.I. 0534-73741

AHR Dollar Inc. Fd.	US$10.09	10.10xd	.....	12.77
AHR Gilt Edg.Fd.	£12.32	12.38	-0.07	12.92

Alliance International Dollar Reserves
c/o Bank of Bermuda, Hamilton, Bermuda.
Adv.: ACM1, 319 High Holborn WC1. 404 0377
Daily Dist.: Oct. 30. 0.000323 (12.5% p.a.)

Arbuthnot Securities (C.I.) Limited

[illegible]

Continued on previous page

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1A	10	Aust. 5½pc '81-82	90⅞	29.8	6.10	13.23
1J	1D	Do. 6pc 1981-83	82¼xd	30.4	7.18	12.62
1Ja	1J	N.Z. 7¼pc 1988-92	67¾	2.6	11.19	13.25
15J	15D	Do. 7½pc '83-86	82	9.40	9.45	12.71
1M	1N	Sth. Africa 9½pc '79-81	94½xd	26.9	10.02	15.13
1A	10	S. Rhod. 2½pc Non-Ass.	106	3'66	—	26.66
15Ja	15J	Do. 6pc '78-81 N.-As.	151	12'65	—	24.18

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PUBLISHED IN LONDON & FRANKFURT

Head Office: The Financial Times Limited, Bracken House, 10 Cannon Street, London EC4P 4BY
Telex: Editorial 8954871. Advertisements: 885033. Telegrams: Finantimo, London.
Telephone: 01-248 8000.

Frankfurt Office: The Financial Times (Europe) Ltd., Frankenallee 68-72, 6000 Frankfurt-am-Main 1.
Telex: Editorial 416052. Commercial 416193. Telephone: Editorial 7598 234. Commercial 7598 1.

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Miscellaneous

Dividends Paid		Stock	Price	Last xd	Div Net	C'vr	Y'ld Gr's
—		Anglo-Dominion	155	—	—	—	—
—		Barymin	52	—	—	—	—
May		Burma Mines 10p	15	14.4	0.62	1.1	6.0
—		Colby Res. Corp.	310	—	—	—	—
Aug.	Feb.	Cons. Murch. 10c.	260	30.6	tQ30c	2.8	6.6
—		††Hemerdon 10c.	95	—	—	—	—
—		Northgate C$1	475	977	—	—	—
Jan.	July	R.T.Z.	470	29.9	t16.0	3.2	4.9
—		Robert Mines	38½	—	—	—	—
—		††SPO Minerals 10p	128	—	—	—	—
—		Sabina Inds. C$1	44	—	—	—	—
—		††SWCM 10p	37	—	—	—	—
—		Tara Expln. $1	546	—	—	—	—

NOTES

Unless otherwise indicated, prices and net dividends are in pence and denominations are 25p. Estimated price/earnings ratios and covers are based on latest annual reports and accounts and, where possible, are updated on half-yearly figures. P/Es are calculated on "net" distribution basis, earnings per share being computed on profit after taxation and unrelieved ACT where applicable; bracketed figures indicate 10 per cent or more difference if calculated on "nil" distribution. Covers are based on "maximum" distribution; this compares gross dividend costs to profit after taxation, excluding exceptional profits/losses but including estimated extent of offsettable ACT. Yields are based on middle prices, are gross, adjusted to ACT of 30 per cent and allow for value of declared distribution and rights.

- ● "Tap Stock.
- * Highs and Lows marked thus have been adjusted to allow for rights issues for cash.
- † Interim since increased or resumed.
- ‡ Interim since reduced, passed or deferred.
- ‡‡ Tax-free to non-residents on application.
- ◆ Figures or report awaited.
- †† Unlisted security.
- # Price at time of suspension.
- ¶ Indicated dividend after pending scrip and/or rights issue: cover relates to previous dividends or forecasts.
- ♦ Merger bid or reorganisation in progress.
- ♣ Not comparable.
- ♦ Same interim: reduced final and/or reduced earnings indicated.
- § Forecast dividend; cover on earnings updated by latest interim statement.
- ‡ Cover allows for conversion of shares not now ranking for dividends or ranking only for restricted dividend.
- ★ Cover does not allow for shares which may also rank for dividend at a future date. No P/E ratio usually provided.
- ♥ Excluding a final dividend declaration.
- ** Regional price.
- || No par value.

§§ Yield based on assumption Treasury Bill Rate stays unchanged until maturity of stock. a Tax free. b Figures based on prospectus or other official estimate. c Cents. d Dividend rate paid or payable on part of capital; cover based on dividend on full capital. e Redemption yield. f Flat yield. g Assumed dividend and yield. h Assumed dividend and yield after scrip issue. j Payment from capital sources. k Kenya. m Interim higher than previous total. n Rights issue pending. q Earnings based on preliminary figures. r Dividend and yield exclude a special payment. t Indicated dividend: cover relates to previous dividend, P/E ratio based on latest annual earnings. u Forecast dividend: cover based on previous year's earnings. v Tax free up to 30p in the £. w Yield allows for currency clause. y Dividend and yield based on merger terms. z Dividend and yield include a special payment: Cover does not apply to special payment. A Net dividend and yield. B Preference dividend passed or deferred. C Canadian. E Minimum tender price. F Dividend and yield based on prospectus or other official estimates for 1981-82. G Assumed dividend and yield after pending scrip and/or rights issue. H Dividend and yield based on prospectus or other official estimates for 1980-81. K Figures based on prospectus or other official estimates for 1979-80. M Dividend and yield based on prospectus or other official estimates for 1980. N Dividend and yield based on prospectus or other official estimates for 1981. P Figures based on prospectus or other official estimates for 1980-81. Q Gross. T Figures assumed. Z Dividend total to date.

Abbreviations: xd ex dividend; xc ex scrip issue; xr ex rights; xa ex all; xR ex capital distribution.

REGIONAL MARKETS

The following is a selection of London quotations of shares previously listed only in regional markets. Prices of Irish issues, most of which are not officially listed in London, are as quoted on the Irish exchange.

			IRISH		
Albany Inv. 20p	38	......	Conv. 9% '80/82	£96	+¼
Bertam	14	−1	Nat. 9½% 84/89	£82⅝	......
Bdg'wtr. Est. 50p	400	......	Fin. 13% 97/02	[illegible]	......
Craig & Rose £1	£11	......	Alliance Gas	51	......
Fife Forge	41	+2	Arnott	202	......
Finlay Pkg. 5p	27	......	Carroll (P.J.)	80	+3
Graig Ship. £1	£25	......	Clondalkin	105	......
Higsons Brew	67	......	Concrete Prods.	85	......
Holt (Jos) 25p	285	+2	Heiton (Hldgs.)	33	......
I.O.M. Stm. £1	160	......	Ins. Corp.	310	......
Pearce (C. H.)	590	......	Irish Ropes	37	......
Peel Mills	49	......	Jacob	51½xd	......
Sheff. Refrshmt	95	......	T.M.G.	58	......
Sindall (Wm.)	141	......	Unidare	80	......

OPTIONS

3-month Call Rates

Industrials					
A. Brew	7	I.C.I.	25	Utd. Drapery	6½
BOC Intl.	8	"Imps"	6½	Vickers	12
B.S.R.	4½	I.C.L.	16	Woolworths	5½
Babcock	8	Inveresk	3	Property	
Barclays Bank	40	Ladbroke	24	Brit. Land	8
Beecham	12	Legal & Gen.	28	Cap. Counties	11
Blue Circle	30	Lex Service	10	Land Secs.	35
Boots	20	Lloyds Bank	28	MEPC	28
Bowaters	17	"Lofs"	4	Peachey	17
B.A.T.	25	London Brick	6	Samuel Props.	15
Brown (J.)	0	Lucas Inds.	17	Town & City	2¼
Burton 'A'	10	"Mams"	18	Oils	
Cadburys	6	Mrks. & Spncr	9	Brit. Petroleum	50
Courtaulds	0	Midland Bank	32	Burmah Oil	20
Debenhams	8	N.E.I.	7	Charterhall	11
Distillers	17	Nat. West. Bank	32	KCA	25
Dunlop	9	P & O Dfd.	12	Premier	13
Eagle Star	24	Plessey	22	Shell	40
F.N.F.C.	5	Racal Elect.	30	Tricentrol	40
Gen. Accident	32	R.H.M.	4	Ultramar	50
Gen. Electric	50	Rank Org.	16	Mines	
Glaxo	22	Reed Intnl.	18	Charter Cons.	30
Grand Met.	14	Sears	5	Cons. Gold	65
G.U.S. 'A'	42	Tesco	4	Lonrho	11
Guardian	32	Thorn	28	Rio T. Zinc	45
G.K.N.	18	Trust Houses	16		
Hawker Sidd.	20	Tube Invest.	21		
House of Fraser	15	Unilever	42		
		U.D.T.	5		

"Recent Issues" and "Rights" Page 26

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FINANCIAL TIMES
Monday November 3 1980

Iran deposits in London cut by two thirds

BY MICHAEL LAFFERTY, BANKING CORRESPONDENT

IRAN'S deposits with the big London clearing banks have been cut back substantially over the past year. They are now thought to amount to £300m-£400m—about one-third their former level.

As the deposits continue to decline the banks are becoming worried about their Iranian loan exposure, which is estimated at around £200m for the big four clearers. Bankers report that Iran is now servicing many of the loans very much in arrear, while some are not being serviced at all.

The British banks, which have had frequent meetings with the Bank of England about the matter, will not seek to offset Iranian lending against their deposits. They may therefore have to recognise all their Iranian lending as irrecoverable in their next accounts. Some British banks have already made partial provision for this.

The banks are also being more cautious about issuing or confirming letters of credit in respect of Iranian oil exports. They will only issue or confirm any other bank's letter of credit if Iran has pledged sufficient funds with them.

Under a normal letter of credit for Iranian oil exports, a bank gives an irrevocable undertaking to pay the National Iranian Oil Company the value of a shipment to one of its customers. In some cases, one bank will be required "to confirm" letters of credit issued by other banks not acceptable to Iran.

The British banks reckon new Iranian oil revenues will dry up this month, because of the cutting off of oil exports as a result of the Gulf War.

They expect that Iran's foreign reserves—estimated over the past year at $7-8bn (£2.8-3.3bn) will then begin to deplete rapidly.

"Give or take three months, Iran will run out of ready cash six to nine months from now," commented one London banker. Another said that without some marked and unforeseen change in the country's fortunes in the near future Iran "will be ruined financially."

Bankers in London doubt that undoing the U.S. government's freeze on $8bn of assets with U.S. banks will do much to improve Iran's finances. They believe numerous civil actions already initiated by U.S. corporations and individuals to attach some of the funds will keep it effectively frozen for some time, regardless of Government actions.

"In any case U.S. banks will offset their lending against frozen deposits," commented a banker.

Gang of four. Page 4

Banks try to get gas pipeline underway

By Sue Cameron and Ray Perman

A GROUP of banks led by the Bank of Scotland and Baring Brothers has offered to buy a lay barge and start work on the new £1.1bn gas gathering pipeline planned for the North Sea.

Their scheme would ensure that the line was made from British rather than foreign steel.

The banks are thought to have suggested that they should raise the money to buy the Viking Piper, a huge lay barge now being used to provide accommodation for North Sea oilmen.

The barge is 75 per cent owned by the U.S.-based Santa Fe group, while the remaining 25 per cent is held by British companies, including the Bank of Scotland.

The plan is understood to have the support of Mr. Ian MacGregor, chairman of the British Steel Corporation. The future of the corporation's pipe steel plant at Hartlepool may well depend on British Steel's success in obtaining the order, or at least a substantial part of it.

Go-ahead

The bankers' plan is understood to have been put to the organising committee set up by the Government in the summer to decide on the structure and financing of the company that will run the new pipeline.

But it is believed the committee, which includes representatives from British Gas, British Petroleum and Mobil, has made no response so far.

The bankers' scheme would ensure an early start on the new line. The Government gave the go-ahead for the project in June and hoped it would be completed by 1984-85.

The Government envisaged financial institutions taking a sizeable stake in the new pipeline company—probably around 30 per cent.

But the City is now said to be "jittery" about investing in it. The main reason is that nobody knows how the gases coming through the line will be priced or who the customers will be.

The U.S.-based Santa Fe is believed to be keen to sell the Viking Piper, which was used to lay the North Sea Ninian field pipeline, but has since had no laying orders, and there were reports last night that the group is also talking to other potential buyers.

Blame

She is said to be one of the few barges in the world capable of laying the 36 inch diameter line that will run for 490 miles once the gas gathering project is completed.

Much of the existing pipeline in the North Sea has been made from Japanese steel, which has tended to be cheaper than British steel. But Mr. MacGregor has warned leaders of the Japanese steel industry that he is determined to see less of their steel used in the North Sea in future.

He is understood to have laid part of the blame for British Steel's poor performance in the North Sea at the door of the British Gas Corporation.

Power workers leaders draw up 20% claim

BY PHILIP BASSETT, LABOUR STAFF

POWER WORKERS' shop stewards are challenging the Government's hopes of keeping public sector pay increases in single figures, by fixing a target of 20 per cent for the power workers' pay increases this winter.

The last time the unofficial but influential power workers' shop stewards' committee decided on a definite target rather than an unspecified "substantial" claim was in 1977, when industrial action in support of it brought widespread disruption to electricity supplies.

No resolution on industrial action was taken at the shop stewards' conference in Doncaster at the weekend which drew up the seven-point claim, but stewards' leaders made it clear yesterday that in presenting the claim to official union negotiators they would assure them of shop-floor backing for any action necessary.

The electricity supply manual workers—one of the most powerful industrial groups—could present the Government with the most severe test of its public sector pay limits.

The miners, the other traditionally powerful group, resume negotiations this week, but gave only a subdued response to the National Coal Board's hint that it would make only a single-figure offer.

Committee leaders will send the results of the Doncaster meeting to officials of the four unions representing the 96,000 supply workers. The official claim is likely to be presented in the new year.

The seven-point unofficial claim asks for: a 20 per cent increase in enhanced scheduled salary rates; a 35-hour week; the consolidation into basic rates of shift and premium payments; at least five weeks' annual holiday; optional retirement at 60 on full pay; the official recognition of the shop stewards in the industry; and consultation of the membership, to include a national ballot, on any pay offer.

Delegates to the 50-strong conference at the weekend decided against a "substantial" claim, and proposed a target of 17 per cent, increased during the debate to 20 per cent.

The agreement for the power workers' last round gave an auxiliary plant attendent a basic rate of about £80 a week, which gave average earnings of about £122.

Last week's New Earnings Survey showed the average earnings for the industry to be £131.30.

An official of the committee said yesterday the stewards had been conscious of their public responsibility, but felt the Prime Minister had to live up to her pre-election promise to end action similar to that of the 1978-79 winter.

To achieve this, the Government had to protect key public sector workers, such as those in electricity and water supply and the coal industry, against inflation.

Low limit on public sector rises

BY ELINOR GOODMAN, LOBBY CORRESPONDENT

THE GOVERNMENT is expected to try and limit pay increases in the public services sector next year to the lower end of the 6 to 10 per cent range implied by the monetary targets.

Details of the pay assumptions in the cash limits for next year, together with the size of the reduction in next year's Rate Support Grant, will probably be announced within the next few weeks even though it is clear that the Cabinet is a long way from agreeing how the Government should achieve its general economic objective next year.

All Ministers seem to have succeeded in agreeing at last week's Cabinet is the need to keep within the broadest outline of the Government's medium-term strategy, bearing in mind the constraints imposed by the deepening recession.

There also seems to have been tacit agreement that this could mean increases in indirect taxes next spring as well as big further cuts in public spending.

But what still has to be agreed is precisely how the Government should meet its targets. Ministers arguing against further big spending cuts, on the grounds that they just deepen the recession, believe that there is still a lot to play for and that the fight with the Treasury is only just beginning.

Further cuts in defence and education spending will be discussed at tomorrow's special meeting of the Cabinet. Although some of those Ministers who have consistently argued for a softer line on public spending were disappointed by the lack of support they got from their colleagues last week, both Mr. Francis Pym, the Defence Secretary, and Mr. Mark Carlisle, the Education Secretary, have indicated in advance that there are limits to what they are prepared to accept from the Treasury.

The Government is determined to clamp down on that part of the public sector for which it is directly responsible even if this means facing out prolonged strikes. There will not be one single figure for the pay assumption in the various cash limits for different parts of the public services but they will probably be set within a very narrow range.

Ministers are still discussing whether the figure should be around the 6 per cent mark or around 8 per cent. But; given the pressure on public spending, the Cabinet may opt for the lower figure in the knowledge that the outcome will probably be rather higher anyway.

BL shop stewards to consider strike risks

By Arthur Smith, Midlands Correspondent

BL CARS union leaders meet in Coventry today to decide whether to risk a strike in protest at the company's 6.8 per cent pay offer.

The BL pay deal, against the background of weak demand and extensive short-time working, had been expected to go through smoothly.

But mass meetings at the 34 plants last week demonstrated surprising shop-floor opposition with 36,400 workers voting to reject the deal, and 32,830 in favour.

At Longbridge, Birmingham, and Cowley, Oxford, the two plants crucial to BL's future model development, and accounting for more than one-third of the labour force, shop stewards report "a determination" to gain an improved pay offer.

'Immune to threats'

Stewards claim workers have become immune to the threats about the future of BL. Their real grievance is at the erosion of living standards at a time of mounting inflation.

While many union leaders still believe a BL offer—perhaps as low as 8.5 per cent—might be sufficient to head off militancy Sir Michael Edwardes, the chairman, has already made clear that "not a penny more" can be paid.

The extent of opposition to the offer has undoubtedly thrown union calculations into confusion.

But the most likely outcome of talks among the 300 senior shop stewards today is expected to be a call for further negotiations with the management.

Moves for five days' notice of strike action will meet powerful opposition. Many union leaders fear that Sir Michael would be able, with the backing of the Government, to exploit the divisions within the union movement and break any strike which was confined mainly to the Longbridge and Cowley plants.

BL shop stewards face a test of nerve, Page 7

Continued from Page 1

Hostages debate

Administration's reluctance to entertain a phased release of some of the hostages, linked to U.S. compliance with various aspects of the Iranian demands.

This reflects U.S. awareness that though it can meet one condition easily — the pledge of non-interference in Iranian affairs — the others entail legal and practical problems. Much, it is thought, depens on Iranian understanding of the limitations of the powers of the U.S. President.

The Majlis decision followed last Thursday's abortive debate when there was no quorum becaus of a boycott by some of the more militant deputies. Over the weekend Ayatollah Montazeri, a powerful religious figure designated as Ayatollah Khomeini's successor, called for all deputies to turn up to votee.

His appeal, together with the decision of the clergy-dominated Islamic Republican Party, which has a majority in the Majlis to back the proposals, was sufficient to ensure that it could at last vote on the fate of the hostages.

The possibility of the imminent release of the hostages has potential, but incalculable, implications for the Presidential election tomorrow. Mr. Powell said Mr. Carter had been careful to inform Mr. Ronald Reagan and Mr. John Anderson, his challengers, as well as senior members of Congress, of the course of events.

It was possible that the President would resume personal campaigning for the last 24 hours before the nation votes, said Mr. Powell: otherwise Mr. Mondale would stand in.

Mr. Reagan declined to comment on the developments but said he would continue campaigning.

Continued from Page 1

Forecasts

These views have considerable influence since both groups are among the adviaers to the all-party Treasury and Civil Service Committee of the Commons, which today questions Mr. Gordon Richardson, the Governor of the Bank of England.

The Business School is broadly monetarist while Phillips and Drew's economists are more in the neo-Keynesian tradition.

The differences about the borrowing projections reflect in part the greater pessimism of Phillips and Drew about the outlook for output next year—a fall of 1.8 per cent against the 0.8 per cent decline expected by the Business School. The brokers are also more pessimistic about public spending and about public sector wage rises.

Weather

UK TODAY

DRY AND cold with sunny periods in most parts.

England, Wales, Channel, I.o.M.
Rather cold.

Scotland, Orkney, Shetland, N. Ireland
Dry, bright or sunny periods.

N.W. Scotland
Mainly dry, cloudy at first.

Outlook: Mostly dry with sunny periods but cold with possible fog patches.

WORLDWIDE

		Y'day midday °C	°F			Y'day midday °C	°F
Ajaccio	C	15	61	Lisbon	R	17	63
Algiers	S	22	72	Locarno	R	4	39
Amsdm.	S	1	34	London	S	8	46
Athens	C	20	68	Los Ang.	F	30	86
Bahrain	S	29	84	Luxmbg.	S	−1	30
Barclns.	C	18	64	Luxor	C	29	84
Beirut	S	25	77	Madrid	F	14	57
Belfast	C	9	48	Majorca	C	20	68
Belgrd.	Sn	1	34	Malaga	C	10	50
Berlin	S	0	32	Malta	F	21	70
Biarritz	S	18	64	M'chstr.	F	6	43
Bmghm.	S	8	43	Melbne.	C	17	63
Blackpl.	F	7	45	Milan	C	5	43
Bordx.	S	15	59	Mntreal.	C	−1	30
Boulgn.	S	3	37	Moscow	S	−1	30
Bristol	S	6	43	Munich	Sn	−3	27
Brussels	S	2	36	Nairobi	C	24	75
Budpst.	F	3	37	Naples	C	12	54
Cairo	F	27	81	Nwcstl.	F	7	45
Cardiff	S	6	43	N. York	C	12	54
Cas'b'ca	F	19	66	Nice	C	12	54
Cape T.	S	32	90	Oporto	C	17	63
Cologne	S	1	34	Oslo	C	2	36
Cpnhgn.	C	4	39	Paris	S	3	37
Corfu	C	15	59	Perth	C	20	68
Dublin	F	10	50	Prague	F	−1	30
Dbrvnk.	R	9	48	Reykjvk.	C	5	41
Ednbgh.	C	8	46	Rhodes	F	22	72
Faro	C	18	64	Rome	F	12	54
Florence	F	9	48	Salzbrg.	C	−1	30
Frankft.	S	2	36	Singapr.	R	32	90
Funchal	R	18	64	Stckhm.	S	4	39
Geneva	C	4	39	Strasbg.	F	1	34
Gibrltr.	C	18	64	Sydney	S	21	70
Glasgow	F	8	45	Tangier	C	19	66
G'nsey	S	7	45	Tel Aviv	S	26	79
Helsinki	S	2	36	Tenerife	S	24	75
H. Kong	F	25	77	Tokyo	C	15	59
Innsbrk.	C	1	34	Toronto	F	7	45
Invrnss.	C	10	50	Tunis	F	20	68
I.o.Man	C	7	45	Valencia	F	18	64
Istanbul	C	14	57	Venice	S	8	43
Jersey	S	5	41	Vienna	Sn	−1	30
Jo'burg	C	19	85	Zurich	C	0	32
L. Pims.	C	23	73				

C—Cloudy. F—Fair. Fg—Fog. R—Rain. S—Sunny. Sn—Snow.

ICI in trade deal with Moscow

BY SUE CAMERON, CHEMICALS CORRESPONDENT

IMPERIAL Chemical Industries, Britain's biggest manufacturing company, is expected to sign a major trading agreement with the Soviet Union in the next two weeks.

The deal has been described as "very important for ICI," but last night the group adamantly refused to talk about it.

It is thought the agreement will enable ICI to sell a wide range of chemicals in Soviet markets. The deal is expected to be signed in London in two weeks—probably on November 17.

The reportedly multi-million pound deal could do much to boost ICI's exports which have been hit by the general recession and by the strength of sterling.

Last month the group reported its first-ever loss of £10m for the July to September period of this year. It said its export margins had "continued to decline," largely because of the high value of the pound.

Four months ago, Mr. Denys Henderson, ICI's commercial and planning director, told a Commons select committee on trade that the group had "consistently applied money and resources to building up overseas trade."

Mr. Henderson said exports were vitally important to the group because of the comparatively small size of the UK market in what was essentially an international business.

He stressed that over 30,000 of the 80,000 ICI jobs in Britain were dependent on exports and that over 33 per cent of the company's UK production was exported.

Mr. Henderson said ICI's overseas trade had grown at a faster rate than its home sales in the last 10 years. ICI's positive contribution to the balance of payments in 1979 had been £592m.

The planned trading agreement with the Soviet Union will not be the first deal ICI has agreed with the Russians. Davy International, the UK engineering and construction group, has been building two methanol plants for the Russians using ICI technology.

The £125m contract was arranged on a buy-back basis. Buy-back deals enable countries to pay for new plants and technology with products—sometimes from the new plant itself, sometimes from other plants.

In this case ICI itself is to sell the methanol—used to make industrial solvites and anti-freeze—from the two new Russian plants in Europe.

ICI was criticised last year when it attacked the disruptive effect of some buy-back deals on the West European chemical market.

But the group said demand for methanol was expected to increase substantially in the next few years.

THE LEX COLUMN

Profit puzzle in company sector

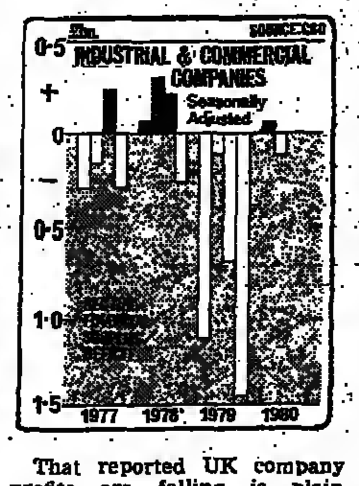
The great company profits and cash flow mystery continues to perplex academics and City analysts alike. Overwhelming evidence of a severe profits slump and cash squeeze in much of industry, has simply failed to show up so far in the national income statistics.

Economic forecasters are now being forced into some highly embarrassing U-turns in their projections for the company sector. In June, the London Business School warned of a 50 per cent fall in 1980 in the company sector's gross trading profits, net of stock appreciation and leaving out North Sea profits now running at about £8bn a year. But the October forecast, published today, indicates that profits on this definition will be unchanged.

So what happened to the collapse? Er, well, says the LBS, it will probably happen next year instead. Similar recanting is due from the National Institute, which in its May Review talked alarmingly of a £10bn financial deficit in 1980 for the industrial and commercial company sector, though by August this was hastily revised down to £5bn. Astonishingly, the official statisticians have now found that the sector was in virtual financial balance in the first six months of the year.

Several conclusions can be drawn from these recent developments. One is that economic models can throw up some extraordinary figures for particular sectors, probably because they are residuals derived from the impact of more realistic assumptions elsewhere in the model. One current quirk of the LBS model, for example, is that it is forecasting quite unrealistic company sector financial deficits of £13bn in 1983 and £15bn in 1984.

Another more useful conclusion, however, is that there are currently substantial shifts in fortune going on between different parts of the overall company sector. In particular, the manufacturing sector is suffering a severe squeeze while the energy and financial sectors are prospering. Moreover there is a basic problem of definition in that the national income accounts deal with trading profits before interest payments (or receipts) while companies and City analysts conventionally focus on the pre-tax profits line. Given that interest payments have jumped sharply, because of the rising level and cost of debt — interest in the second quarter appeared to be absorbing a quarter of the gross UK trading profits of industrial and commercial companies — the scope for divergence becomes quite large.



That reported UK company profits are falling is plain enough. Brokers Phillips and Drew's quarter-by-quarter profits series now has about 50 per cent coverage of April-June, on which basis a 17 per cent decline is suggested on a year earlier. As for the third quarter, ICI has quickly set the tone by reporting its first ever loss, and the general impression across industry is that the decline has continued since mid-year although it could well be that the third or fourth quarter will mark the absolute nadir.

Forecasts for the year ahead are complicated by the way that stock appreciation is expected to be falling (this will be good for cash flow but bad for historical cost pre-tax profits) while interest rates should also ease (so that pre-tax profits could rise even if trading profits look weak). But the opinion of brokers like P and D, and also Simon and Coates, who track these trends of aggregated profits, is that pre-tax profits will continue to show a year-on-year decline during the first half of 1981, but should begin to recover in the second six months.

As for the apparent financial equilibrium of industrial and commercial companies, there is a feeling that this could come in for a measure of retrospective revision given that there is a £3.45bn residual error in the first half national income accounts. Even so, the speed of response of the company sector to the financial pressures afflicting it is highly impressive.

U.S. money supply

The speculation on Wall Street after the release of the money supply data on Friday night was not about whether the discount rate was going to be increased but rather about when it would move up and by how much. The figures, which took in a marked upward revision in the previous week's estimates, pointed the way towards further unhappiness in the bond market in the next few days.

Money markets are already anticipating that the Federal Reserve will raise the discount rate by at least one percentage point and there is a general expectation that prime rates will soon be 15 per cent or higher. But the timing problem is ticklish and not just because of tomorrow's election. The Treasury's very large quarterly refunding operation is also about to get under way. Some analysts argue that the decision should be taken out of the hands of the Fed by the introduction of some form of market-related rate.

Behind this somewhat technical debate lies the fact that demand for bank credit has been accelerating in the past month or two and that inflationary pressures are again making themselves felt in the U.S. economy.

CCA earnings

The Society of Investment Analysts has come out with a new recommendation for the calculation of earnings per share. Essentially it seats out its arguments on the tax treatment of profits on a current cost accounting basis. The Society's leaning towards the CCA approach itself has been consistent over the year, and a survey of analysts earlier this year confirmed — albeit on a very low response rate — that they accept the current cost standard SSAP 16 including the gearing adjustment.

In calculating historic cost earnings per share the analysts have rejected the SSAP 15 basis of accounting for deferred tax, preferring to charge notional "full" tax. The argument has been that historic cost figures should not receive the benefit of inflation-related tax allowances.

Now SSAP 15 also gets short shrift when it comes to current cost calculations: current cost earnings, say the analysts, should not suffer any deduction at all for deferred tax. The argument is that the treatment of tax allowances is not consistent between companies, and also that the allowances may vary erratically from year to year. There being no practicable alternative to inclusion or exclusion of the entire provision, the decision has been taken to adopt a "no deferral" basis.

Dividend cover is recommended to be calculated on a "full distribution" basis, which makes allowance for the fact that advance corporation tax is not recoverable on the distribution of foreign income and untaxed UK income.

Registered at the Post Office. Printed by St. Clement's Press for and published by the Financial Times Ltd., Bracken House, Cannon Street, London, EC4P 4BY.